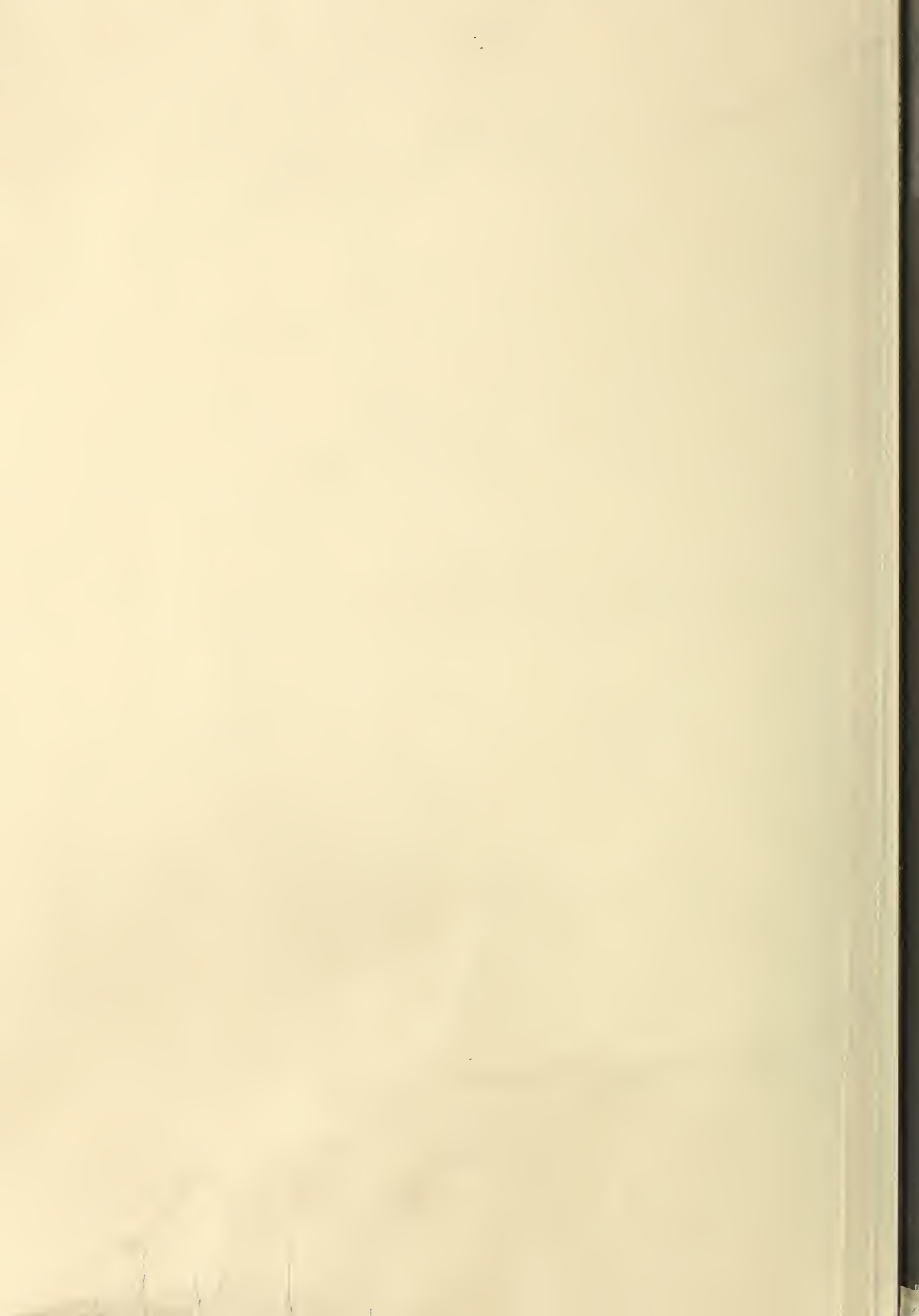


Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.



The State of Nutrition Education in USDA A Report to the Secretary

Submitted to the Secretary
by the State of Nutrition Education
in USDA Working Group

Facilitator/Coordinator:
Center for Nutrition Policy & Promotion

October 1996





USDA prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, and marital or familial status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact the USDA Office of Communications at (202) 720-2791.

To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, DC 20250, or call (202) 720-7327 (voice) or 720-1127 (TDD). USDA is an equal employment opportunity employer.

U.S. DEPARTMENT OF AGRICULTURE
OFFICE OF THE SECRETARY
APR 1 1998
CATALOGING PREP.

The State of Nutrition Education in USDA

A Report to the Secretary

Submitted to the Secretary
by the State of Nutrition Education
in USDA Working Group

Facilitator/Coordinator:
Center for Nutrition Policy & Promotion

October 1996



Executive Summary

Diet has a significant impact on the health of Americans. Four of the 10 leading causes of death in the United States are linked to diet: heart disease, cancer, stroke, and diabetes. Diet also plays a role in other health conditions such as overweight, hypertension, and osteoporosis, which can reduce quality of life and productivity and contribute to premature death. Taken together, these seven diet-related health conditions cost society an estimated \$250 billion each year in medical costs and lost productivity--a significant portion of which might be saved by an improved diet.

While genetic predisposition increases some people's risk for those chronic diseases, behavior within a person's control, such as diet, smoking, and regular exercise can also change the likelihood of contracting them. Although diets have improved since the introduction of the Dietary Guidelines for Americans in 1980, most diets today still fall short of meeting Federal recommendations, indicating continued need for nutrition education that motivates consumers to adopt healthy eating habits.

The good news is that nutrition education can work to improve diets. A recent comprehensive review of nutrition education interventions with well-planned evaluations found that nutrition education is a significant factor in improving dietary practices when behavioral change is set as the goal and the educational strategies employed are designed with that as a purpose. Programs emphasizing dissemination of information and teaching of skills are seldom sufficient to motivate behavior change.

Nutrition is the link between agriculture and health. The U.S. Department of Agriculture (USDA) has long been committed to improving the nutritional health of Americans through a program of research and education to maintain a food supply of high nutritional quality and encourage consumption of a healthful diet. In June 1995, USDA declared a renewed emphasis on nutrition education and called for an assessment of past and current nutrition education activities as a prelude to strategic planning for future efforts.

In 1986 USDA developed a Comprehensive Plan for a National Food and Human Nutrition Research and Education Program that described specific food and human nutrition research and education activities the Department expected to emphasize in carrying out its broad mission. Over the last 10 years this plan has guided development of the Department's research strategies and coordination of research and education activities within the Federal Government and the private sector. Currently, the Department's traditional paradigms and ways of providing nutrition education are being challenged by significant demographic and

environmental changes--newer communications technologies; new products in the marketplace; strained fiscal resources and greater competition for them; consumer diversity; an emphasis on accountability and demonstration of dietary behavioral change; and, above all, repeated scientific confirmation that diet can affect the health status of Americans. Additionally, the recent Government Performance and Results Act (GPRA) requires Federal agencies to submit strategic and performance plans to Congress. These events provide additional impetus for USDA to review and revise its nutrition education plan and establish priorities for future nutrition education efforts.

A USDA Working Group was formed and met during the past year to produce this report. The Working Group was charged to take an objective, comprehensive look at the state of nutrition education in USDA, to assess the Department's current efforts, and to make recommendations based on what was learned. It is hoped these recommendations will help the Department prepare its GPRA submission, and that implementation of these recommendations will revitalize USDA's nutrition education program and provide the impetus for developing a new strategic plan for the years ahead.

The Working Group developed and adopted a statement that became a framework for describing USDA's contributions to the nutrition education process. Additional information was compiled on a number of topics: An historical review of nutrition education activities at USDA; a review of key legislation authorizing USDA to conduct nutrition education; a review of data on USDA's annual nutrition education expenditures; and tabular summaries of information on current nutrition education program activities at the Federal, State, and community levels. A special effort was made to identify USDA-sponsored nutrition education activities that had evaluations. All of this information was synthesized to prepare this report and develop recommendations for the Secretary of Agriculture to consider in a spirit of renewal as the Department approaches the 21st century.

The many observations gained from the collected materials and information were condensed into four major Findings Statements:

1. *There are numerous innovative nutrition education activities going on at USDA. Timely access to information about them is a challenge.* USDA agencies conduct a wide range of activities that contribute to its total nutrition education effort, but collecting and sharing information about them is a challenge. Better communication channels would help promote information technology transfer.
2. *Evaluating effectiveness of USDA's current nutrition education efforts is difficult.* A combination of factors--such as a paucity of data, inadequate funding, and a change in expected evaluation outcomes--has created a challenging environment for USDA to assess the overall effectiveness of its nutrition education activities. Activities that do have an evaluation component indicate effectiveness to varying degrees.

3. *USDA does not have a consistent mandate to conduct nutrition education throughout all its food assistance programs.* USDA started in 1862 with a broad authority to conduct nutrition education. Over time through legislation, that authority has become focused largely on three programs: Special Supplemental Nutrition Program for Women, Infants, and Children (WIC); Nutrition Education and Training program (NET); and Expanded Food and Nutrition Education Program (EFNEP). Just recently, policy concerning the delivery of nutrition education within the Food Stamp Program (FSP) has been published by the Food and Consumer Service (FCS). All of USDA's food programs could benefit from the sustainability that a Department-wide, rather than program-specific, policy on nutrition education delivery would provide.
4. *Many USDA nutrition education efforts have failed to expand due to static Federal appropriations and inflation.* The Department's earliest legislation directed nutrition education efforts to all Americans. Yet, in 1995 approximately 83 percent of USDA's nutrition education expenditures was spent on the programs targeting low-income audiences (WIC, EFNEP, and FSP matching funds), another 12 percent went to children, and just 5 percent to the general public. Over the past 10 years, funding trends have shown that nutrition education efforts in WIC, NET, and EFNEP may have been hampered and the number of people receiving nutrition education compromised by undependable appropriations and effects of inflation. Alternative funding structures and mechanisms would make better use of existing program funds and revive USDA's broad authority to provide nutrition education to all Americans.

Recent trends in the Department's nutrition education efforts indicate a responsiveness to the social and environmental changes now facing us. However, to achieve a cost-effective, integrated, comprehensive, and sustainable nutrition education program for all Americans by the 21st century, the Department along with its State and local partners should take a proactive role as it prepares its strategic plan in adherence to the GPRA requirements and commit to change now -- it is time to develop and adopt a new plan to RENEW, RETOOL, and REFUEL nutrition education at USDA. USDA needs to:

RENEW its position as the Federal leader of nutrition education and its commitment to nutrition education, by updating the 1986 plan with a new plan for USDA that establishes a systematic, comprehensive, and coordinated nutrition education program that will benefit all Americans. Getting input from regional, State, and local partners is critical to the sustainability and success of such a plan. USDA needs to:

- ◆ *Make Nutrition Education a Priority.* It should be a sustainable, comprehensive, coordinated, and cross-cutting element of the Department's overall strategic plan.
- ◆ *Reach Out to All Americans.* Develop and target consistent, science-based messages to all Americans, regardless of any program affiliation.
- ◆ *Put Nutrition Education into All USDA Food Programs.* All of USDA's food programs could benefit from a Department-wide, rather than program-specific, policy to deliver nutrition education.

- ◆ *Link with Constituencies.* Foster cooperative efforts among the Department's State and local level program constituencies--schools, health and welfare departments, Cooperative Extension offices.
- ◆ *Nurture Partnerships and Coalitions.* Establish and foster nutrition education and promotion efforts with collaborators outside the Department and Federal Government.

RETOOL for a new paradigm for determining effectiveness, i.e., evaluation. Today it is critical that we prove our value, but we can no longer rely on anecdotal data. More emphasis should be placed on the evaluation of USDA-sponsored nutrition education efforts to demonstrate more conclusively the effectiveness of nutrition education and to delineate more comprehensively the specific components that contribute to success. A continuing paucity of evaluation data will hamper attempts to assess the strengths of and barriers to our interventions and to apply that information to improving future efforts. USDA needs to:

- ◆ *State Nutrition Behavior Change As a Departmental Objective.* Unless behavioral change is planned for in the beginning, it cannot be an endpoint objective.
- ◆ *Evaluate All Nutrition Education Projects.* A commitment to conduct evaluations now will ensure there are data available for future use.
- ◆ *Refocus Training.* Training in consumer research and evaluation will upgrade old skills to perform in new ways, particularly with increased participation of nutrition professionals at State and local agencies working in USDA programs.
- ◆ *Refocus Research.* Increase research in the behavioral and social sciences, on cost-effective designs and validated instruments, and on innovative information transfer technologies.

REFUEL energy, excitement, and commitment to nutrition education through better communication and increased support of cross-program efforts with the State and community levels. Effective communication will prevent program overlap and allow planners access to information on successful components of past interventions that can be used to design future efforts. Effective communication will strengthen the commitment of State and local partners and improve the quality of an intervention when their input is sought and valued. USDA needs to:

- ◆ *Make Information on USDA's Nutrition Education Activities Electronically Accessible.* Provide a quick way to get timely information about current activities.
- ◆ *Follow-up with Project-End Reports.* A necessary communication tool to share program effectiveness--both successes and failures.
- ◆ *Publish and Share Project Information.* Another necessary communication tool, more far-reaching than a project-end report.
- ◆ *Sponsor Cross-Program Meetings.* A two-way communication tool to share program effectiveness and ideas for delivery strategies and cooperative efforts.
- ◆ *Explore Alternative Financing.* Look for ways to augment and stretch available Federal dollars to fund and implement cross-program nutrition education efforts.

Table of Contents

Executive Summary	i
Introduction	1
USDA Activities Contributing to Nutrition Education	2
Assessment Methodology	2
Collection of Background Information	3
Findings	8
Recommendations for Consideration	17
Acronyms and Abbreviations	22
References	23
Figures	24
1: Major Nutrition Education, Information, and Promotion Activities in USDA	24
2: USDA Activities Contributing to Nutrition Education	26
3: Interrelationships in USDA Nutrition Education Activities	28
Tables	30
1: Example USDA Nutrition Education Program Activities (by program)	31
1A: Example USDA Nutrition Education Program Activities (by type)	33
2: Example Current USDA-Supported State and Local Nutrition Education Projects	36
3: Some Recent USDA Competitively funded Nutrition Education Projects	43
Appendices	49
A State of Nutrition Education in USDA Working Group Members	49
B Historical Overview of Nutrition Education at USDA	50
C Legislative Authority for USDA Nutrition Education Efforts	56
D Funding for USDA Human Nutrition Research and Education Activities	79

Introduction

USDA has a rich history of providing science-based nutrition information and education to the public. Beginning with the Organic Act of 1862 the newly formed U.S. Department of Agriculture was authorized to "acquire and diffuse among the people of the U.S. useful information on subjects connected to agriculture and rural development." Since then several legislative changes have refined the mission of the Department of Agriculture to further its position as a leader in nutrition education.

Nutrition education efforts of the Department have expanded rapidly over the last 25 years with the institution of new food assistance programs and the increased emphasis on the role of nutrition in the promotion of health and prevention of major chronic diseases. Major demographic and environmental changes have influenced both the characteristics of target audiences for nutrition education and the media available to deliver nutrition messages. Research in nutrition education and evaluation has introduced new information and refocused objectives to enhance the impact of nutrition education on improving food habits and, ultimately, the health and well-being of the population.

Nutrition is the link between U.S agriculture and the health status of American consumers. It is a two-way street: Science-based nutrition messages can motivate Americans to make healthful changes in their diets, thereby creating new demands in the kinds and amounts of food people buy and consume in the marketplace. Similarly, market responsiveness to changed consumer demands will create new products and other changes in our food system (e.g., low-fat/reduced calorie foods; cholesterol-free eggs; leaner pork--"the other white meat;" and "z-trim," an oat-based food additive) that will ultimately affect available food choices. Scientific evidence increasingly suggests that poor diet plays an important role in chronic disease. Well-targeted nutrition education and promotion activities can help facilitate the adoption of new agricultural products into healthful American eating habits, which over time can lead to positive health outcomes and reduced health care costs.

In accordance with the National Agricultural Research, Extension, and Teaching Policy Act Amendments of 1985 (section 142 (b)), in 1986 USDA prepared a comprehensive plan for a National Food and Human Nutrition Research and Education Program. Since that time, the Department has submitted to Congress yearly reports highlighting research and education activities conducted under that plan. However, in light of the changing environment over the last decade and the Department's intention to renew emphasis on nutrition education, the Secretary called for a report to specifically assess the current State of Nutrition Education in USDA. It is hoped the recommendations from this report can be infused into the strategic planning for the Department's nutrition education programs for the next century.

In July 1995, a State of Nutrition Education in USDA Working Group (Appendix A - Membership List, p. 49) was convened to plan and implement a self-assessment and to report its results and recommendations to the Secretary. Members of the Working Group represented the seven agencies in USDA involved with an array of activities related to nutrition education, information, and promotion (fig. 1, p. 24). Representatives from the Center for Nutrition Policy and Promotion (CNPP) facilitated the process and coordinated the Working Group's activities to produce this report.

USDA Activities Contributing to Nutrition Education

USDA's overall nutrition education goal is to provide an integrated nutrition education program that contributes to a nutritionally knowledgeable public, motivated to make behavioral change(s) to promote optimal health and nutritional status. In the absence of a comprehensive framework for describing the diverse nutrition education activities in USDA, the Working Group developed and adopted the statement in figure 2 (p. 26).

This framework for the Department's nutrition education activities provided a focal point for the Working Group's activities and discussion. Each agency has a specific mission to accomplish certain activities. These activities interrelate with the missions and activities of other USDA agencies to address the key elements of the nutrition education process: Research, policy and recommendations development, translation and communication of information, and impact evaluation. The interrelationships of these key elements are presented in figure 3 (p. 28) and used again in table 1 (p. 31), which lists examples of USDA Nutrition Education Program Activities categorized by these same key elements of the nutrition education process.

Assessment Methodology

An evaluation consultant was engaged to help the Working Group determine the most appropriate methodology for assessing USDA nutrition education efforts. To do this, available data and information about Department activities were reviewed. Because of time and other resource constraints, the consultant focused on compiling existing information and data for Department-sponsored activities at the Federal, State, and local level that *deliver nutrition education directly to consumers and program participants*.

Information on programs with process evaluations and outcome evaluations was collected, but primary emphasis was on programs with outcome evaluations. Both published and unpublished information was used, because the use of only published information severely limited available data. While locating unpublished information was tedious, it did enhance the overall picture of USDA's total nutrition education efforts, particularly for activities implemented at the State and local level.

A particular focus was placed on finding behavior-related outcome measures. These provide the strongest, most defensible information about program effectiveness and often are accompanied by information on changes in attitudes, knowledge, or skills--factors that contribute to achieving behavioral change.

During the initial review of available data, the consultant reported that:

- 1) Many of USDA's efforts involve more than one agency in the Department
- 2) The Department is increasingly stressing nutrition education programs designed to change behavior
- 3) Data from current activities on the effectiveness of the Department's efforts are limited; however, many projects currently underway are likely to yield useful data about the effectiveness of its nutrition education programs in the not-too-distant future
- 4) The target audience for which there is the most information about effectiveness of Department-related nutrition education efforts is low-income families
- 5) The nature of the Department's programs varies because States and localities have flexibility in deciding how to tailor activities and collect data on program effectiveness.

Because of current data limitations, the consultant recommended the use of a combination of methodological approaches--a descriptive review of available research coupled with in-depth case studies of a small number of exemplary State- or community-level activities--to assess the effectiveness of Department-sponsored nutrition education efforts.

Collection of Background Information

In conjunction with and on behalf of the Working Group, CNPP staff proceeded to conduct a "review of available research" as recommended by the methodology consultant. In preparation for undertaking in-depth case studies, CNPP staff also began soliciting recommendations from headquarters and regional office staff for examples of State and local nutrition education projects receiving USDA program support, particularly those having evaluation components. Eventually, the Working Group concluded that highlighting just a few case studies would not permit adequate representation of the diversity of efforts underway. It was suggested that compiling and summarizing all the collected information would present a more complete picture of current USDA-supported nutrition education efforts at the State and community levels. Summary information collected for some example State, local, and competitively funded nutrition education efforts is presented in table 2 (p. 36) and table 3 (p. 43). These tables are not an exhaustive listing of all USDA-sponsored projects; however, they provide a "snapshot" of efforts underway across the country.

Information compiled from the research review and the summary of example State and local activities was augmented with other resources to construct this report: a paper presenting an historical overview of nutrition education at USDA (Appendix B, p. 50); a summary of the

legislative authority for USDA nutrition education efforts (Appendix C, p. 56); and a summary of funding for USDA nutrition education, information, and promotion activities (Appendix D, p. 78).

History of Nutrition Education at USDA: From its inception, USDA has focused primarily on providing education and information to Americans to help them improve and/or obtain an adequate diet. Prior to the 1960's, providing the right kind of information was important: in the 1930's, it was providing "common-sense knowledge of nutrition"; with the release of the first RDAs in the early 1940's and on into the 50's, nutrient adequacy was emphasized; in the late 1960's, when the 1969 White House Conference on Food, Nutrition, and Health was held, the focus turned toward linking nutrition education to promoting optimal health with food. Sound nutrition education would enable people to make wise decisions about their food choices.

The 1970's was a turning point for the Department's nutrition education efforts. The Food and Agriculture Act of 1977 named USDA the "lead" agency for nutrition research, extension, and teaching. There was a call for the development of more effective systems for delivering nutrition information to the public and specific target audiences. Growing evidence relating certain food components to risks for chronic disease and increased public interest in diet and health issues led to the first issuance of the *Dietary Guidelines for Americans*.

In the 1980's, the Department placed increased emphasis on nutrition education research to develop improved materials and methods for informing the public about good nutrition. Efforts to evaluate nutrition education tools being developed, for comprehension and perceived usefulness by the targeted audiences, were enhanced.

The 1990's introduced new directions to the Department's efforts to bring cost-effective, comprehensive, and coordinated nutrition education efforts to all Americans. As in the nutrition education profession at large, the Department has been shifting its goal for nutrition education from simply providing nutrition information and skills to fostering behavioral change by the target audience. The focus is on motivating consumers to adopt eating practices conducive to optimal health. This paradigm shift, emphasizing interventions to produce behavioral change, is supported by the findings of recent research (Contento, et al, 1995) which suggest that educational methods directed to behavioral change are more effective in changing attitudes and behavior, than educational methods that just disseminate information.

Legislative Authority: Broad statutory authority to conduct nutrition education and information dissemination activities was given to the Department when it was created in 1862. This authority was reinforced in 1914 when the former Extension Service was created within the Department to work with State and local agencies to help disseminate information to the general public. (Amendments in 1953 and 1977 specified inclusion of topics related to home economics and nutrition.) Specific program enactments, some creating nutrition education components to existing programs, have provided more specific statutory authorities over the years. The objective of some was to expand effective food, nutrition, and consumer education

services to greater numbers of low-income people. NET, EFNEP, and WIC nutrition education program activities were initially authorized during the 1970's (Box 1, below). More recent legislation has focused on providing information and guidelines to the general public (National Nutrition Monitoring and Related Research Act, 1990) and has promoted greater coordination of efforts between the Food and Consumer Service (FCS) and the Cooperative State Research, Education, and Extension Service (National School Lunch Act and Child Nutrition amendments of 1977, Food Security Act of 1985, and Food, Agriculture, Conservation and Trade Act of 1990).

Box 1. USDA Nutrition Education Programs with Legislative Authorization

NET	Nutrition Education and Training Program
Target audience:	Children, all incomes
Agency responsible:	FCS
State collaborators:	State education departments
Delivery:	Training of school food service, teachers School nutrition education curricula Training for child care providers and parents
WIC	Special Supplemental Nutrition Program for Women, Infants, and Children
Target audience:	Low-income pregnant and breastfeeding women, infants, and children up to age 5
Agency responsible:	FCS
State collaborators:	State health departments and WIC clinics
Delivery:	Individual counseling or group lessons along with WIC food package or vouchers for supplementary foods; two contacts per 6-month certification period
EFNEP	Expanded Food and Nutrition Education Program
Target audience:	Limited-resource families with young children; low-income youth
Agency responsible:	CSREES
State collaborators:	State land-grant universities; county cooperative extension offices
Delivery:	One-on-one home visits, or group classes by trained paraprofessional aides; in-depth 6-month program

Research Review: A recent review of research on the delivery of nutrition education, commissioned by FCS, was published in a special issue of the *Journal of Nutrition Education* (Contento, et al, 1995). This review summarized published intervention studies with strong evaluation designs to identify elements that contribute to the effectiveness of nutrition education in promoting behavioral change. Overall, the study found that interventions using

educational methods directed at behavioral change as a goal were more likely to result in at least some behavioral change than interventions focusing on dissemination of information with the assumption that such information will change a person's attitude and behavior. This review found that programs were more likely to be effective if they:

- Set behavioral change as a goal from the outset of the program
- Enhanced motivation and awareness through the use of appropriate communication strategies for specific target audiences
- Got active involvement by community leaders and members to help infuse nutrition education into the community's social network
- Built a health-enhancing environment; for example, by including interventions with grocery stores, eating establishments, schools, and worksites.

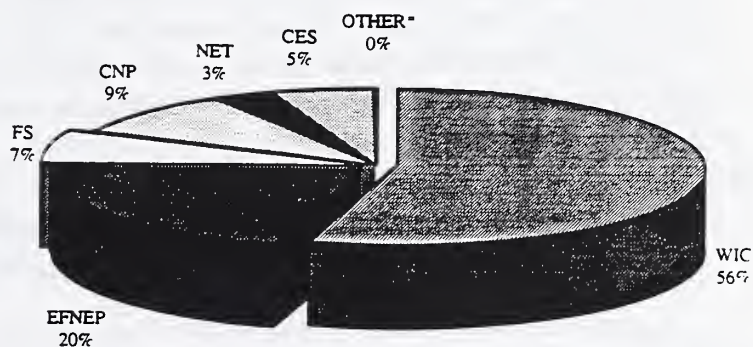
The State of Nutrition Education in USDA Working Group found that many current USDA-supported program activities do incorporate elements that were found effective in the Contento monograph. Tables 2 and 3 (p. 36 and p. 43, respectively) illustrate a sample collection of USDA-sponsored and competitively funded Federal, State, and local/community nutrition education and nutrition-related efforts. The examples are not intended to be a nationally representative sample; however, they include a variety of noteworthy projects from many States across the Nation. They can be characterized and summarized in the following ways:

- There is increased cooperation across agencies and programs to implement activities at the community level for common target audiences
- Target audiences represent various ages and culturally diverse groups, in urban and rural settings
- Many activities contain an evaluation component, some more elaborate than others
- Projects range widely in size, from those funded with NET mini-grants of \$2,500 to State Family Nutrition Programs funded with Food Stamp State matching grants over \$2.5 million
- The delivery and communication methods show that varied techniques are being implemented (e.g., video teleconferences, computer-assisted programs, hotlines, "learn while you wait" features); many delivery methods require active participation to enhance learning; and many projects represent comprehensive programs that target multiple audiences. Various audiences can reinforce learning for each other (e.g., students, teachers, parents, and school food service).

Funding: USDA's total funding in FY 1995 for Human Nutrition Research and Education was \$400.3 million. Of that, \$325.6 million (81%) went toward nutrition education activities, \$55.2 million (14%) for basic research on human nutrient requirements and food composition, and \$19.5 million (5%) for monitoring of food consumption and use of foods. By target audience, 83 percent of FY 1995 expenditures for nutrition education went for activities specifically directed to low-income audiences (WIC, EFNEP, and FSP), primarily low-income

women and children participating in USDA's food assistance programs. For the three programs with legislated nutrition education responsibilities, WIC accounted for 56 percent, EFNEP 20 percent, and NET 3 percent of nutrition education expenditures. Since program inception, funding for NET and for EFNEP has been seriously eroded by undependable appropriations and by inflation.

USDA NUTRITION EDUCATION FUNDING
FY95=\$325.6M



*Other nutrition education activities of FNIC, FSIS, and CNPP = <1% of expenditures.

Findings

Nutrition education must continue as a priority at USDA. To be effective it must be ongoing and sustainable. Such a commitment will ensure that USDA succeeds in its goal to promote optimal health and nutrition status to all Americans. The adoption of a comprehensive, fully integrated nutrition education plan will ensure USDA's continued role as a leader of nutrition education well into the 21st century. It is hoped that the Working Group's findings and recommendations on the current State of Nutrition Education in USDA presented in this report will serve as a starting point for building a visionary and effective strategic plan for nutrition education.

1 **There are numerous innovative nutrition education activities going on at USDA. Timely access to information about them is a challenge.**

USDA agencies conduct a wide range of activities that contribute to the Department's total nutrition education effort. Obtaining a clear, comprehensive picture of USDA's total effort is difficult because of the diversity of activities engaged in by the Department's agencies at the Federal, State, and local levels. There are challenges in collecting and sharing information on projects planned, recently funded, or underway. Better communication channels could promote greater interagency cooperation, prevent duplication of effort both within and outside the Department, and advance a renewed vision for nutrition education shared by the Department and its customers.

USDA's ultimate goal is to provide an integrated nutrition education program that contributes to a nutritionally knowledgeable public, motivated to make behavioral change(s) to promote optimal health and nutritional status (fig. 2, p. 26). The delivery of effective nutrition education services requires coordinated efforts from a number of Department agencies. It is the collective activities of these agencies that form the basis of USDA's total nutrition education, information, and promotion program. USDA's efforts are: structured to encompass the multiple phases of the nutrition education process; conducted with different target audiences; and continually being implemented at three different levels--Federal, State, and local.

Diversified Activities: Several agencies in USDA are responsible for and conduct most of the major nutrition education activities within the Department. Each of these agencies has a very specific mission to conduct these specialized activities. Figure 1 (p. 24) graphically portrays

these agencies and their major nutrition education program responsibilities. The matrix in table 1 (p. 31) presents examples of USDA's current program efforts categorized by the part of the nutrition education process (defined in fig. 2, p. 26) on which the activity focuses. Together, table 1 and figures 1-3 (p. 24-28) show the diverse range of nutrition education efforts at USDA, including activities related to research, policy and recommendations development, and the translation and communication of information to an array of target audiences.

Although some program activities may appear to be duplicative, this is not the case. For example, EFNEP and WIC provide nutrition education to similar target audiences, but the characteristics of the educational efforts differ. Within EFNEP, nutrition education activities are usually conducted by a trained paraprofessional; are long-term and involve intensive instruction; and usually focus on family nutrition, food safety, and food money management topics. The WIC program efforts are conducted by health professionals or paraprofessionals, but are of short duration (offered in two 15-minute sessions per each certification period), and focus on specific nutritional risk factors in pregnancy and infant feeding, as well as the use of foods and coupons provided in the WIC food package.

The NET program and Team Nutrition initiative are examples of two nutrition education efforts that both target the Child Nutrition Programs. However, they are really quite different. NET is a legislated, on-going program in existence since 1977. Grants to States allow them maximum flexibility to design and implement their own program objectives and elements that adhere to the Dietary Guidelines. The nutrition messages and materials produced cover a wide range of topics and media in order to target special audiences. State NET coordinators submit activity reports and evaluations each year. Team Nutrition is a nationwide, integrated program designed to help implement USDA's School Meals Initiative for Healthy Children. It was designed and is being coordinated at the Federal level, being implemented and evaluated initially through designated "Team Nutrition" schools throughout the Nation. Many of the materials developed at the Federal level are being supplied to project partners and community cooperators. All Team Nutrition materials focus on specific messages from the Dietary Guidelines to encourage children to eat more grain products, vegetables, and fruits, and to choose diets that are lower in fat.

Variety of Target Audiences: Target audiences and messages vary depending on an agency's mission. For example, the Cooperative State Research, Education, and Extension Service (CSREES) in partnership with the Cooperative Extension System (CES) operate their base program for targeted segments of the general public, the EFNEP for low-income youth and families with young children, and the ES/WIC Nutrition Education Initiative for the neediest WIC participants. The Food and Consumer Service supports nutrition education to low-income families receiving Federal food assistance and provides technical support to professional and paraprofessional audiences associated with the food assistance programs. The Agricultural Research Service (ARS) reaches mostly professional and technical audiences with results of their food and nutrition research and food consumption surveys and both professional and paraprofessional audiences through the information and services provided by

the National Agricultural Library's Food and Nutrition Information Center (FNIC). The Center for Nutrition Policy and Promotion (CNPP) links research to the consumer and, therefore, reaches both the technical/professional audience and the general public. The Economic Research Service (ERS) generally provides information and analysis to Government agencies and Congress, as well as research results, training, and technical assistance to technical and professional audiences. The Food Safety and Inspection Service (FSIS) reaches mostly the general public in its nutrition education activities related to nutrition labeling and safe handling of meat and poultry products. Also, in keeping with effective message targeting, special emphasis is often given to ethnic and cultural differences of population subgroups by agencies reaching the general public.

Activities Implemented at Three Levels: USDA sponsors nutrition education activities at the Federal, State, and local levels.

Federal level nutrition education efforts include:

- 1) Three programs specifically legislated to conduct nutrition education through State agencies: Expanded Food and Nutrition Education Program; Special Supplemental Nutrition Program for Women, Infants, and Children; and Nutrition Education and Training program as the educational arm of the Child Nutrition Programs. Funding is dispensed through grants to States for NET and WIC, and formula funding for EFNEP.
- 2) Special nutrition education activities and pilot projects: for example, "Team Nutrition" for the Child Nutrition Program, and "Healthy Eating for Life Program" as part of Cooperative Extension System's Decisions for Health: A National Initiative.
- 3) Research and development grants. FCS's competitively funded projects are based on research funds and are awarded as grants, cooperative agreements, or contracts; examples include the FY '94 and '95 projects in table 3 (p. 43) and FCS's State Agency Support Network Nutrition Education Cooperative Agreements.
- 4) Nutrition education that is legislated as the States' provisional option, based on matching funds. Food Stamp Program funds are delivered through administrative matching funds (at a ratio of 1:1, Federal and State).

State and community level nutrition education efforts abound. Many are partially sponsored by USDA but usually also receive funds from other sources. The specific focus of the research or education project is left to the discretion of State land-grant universities, county governments, or community organizations involved (e.g., projects listed in table 2, p. 36), but many use themes, and sometimes materials, developed at the Federal level. Programs, such as EFNEP, WIC, and NET, are operated directly through State and local agencies.

2

Evaluating effectiveness of USDA's current nutrition education efforts is difficult.

There are few data available to assess the effectiveness of various USDA nutrition education programs for bringing about behavioral change. Inadequate funding is one of the major factors limiting the evaluation of USDA's efforts; available funds are often applied to maintain program delivery rather than to conduct evaluation. USDA's current activities are being measured against evaluation outcomes that many programs were not designed to meet.

The need for nutrition education continues to be substantiated by scientific evidence that increasingly suggests the role diet plays in the onset of chronic diseases. Four of the leading causes of death in the United States--heart disease, cancer, stroke, and diabetes--are linked to diet. Some researchers estimate that proper diet might even forestall at least 20 percent of the annual deaths from these four diseases. Another three--overweight, hypertension, and osteoporosis--can reduce a person's quality of life and productivity, and contribute to premature death. Genetic predisposition can increase some people's risk for those chronic diseases; however, a person's behavior--diet, smoking, and regular exercise--can also have an effect. A recent ERS report, *The American Diet, Health and Economic Consequences* (Frazao, 1995), stated that the overall economic cost associated with these major diet-related health conditions is about \$250 billion annually. Research is now beginning to show that effective nutrition education, appropriately targeted, can motivate people to change their behavior and, ultimately, impact annual health care costs.

Up until the 1980's, the Department's Federal-level nutrition education efforts were focused almost entirely on information delivery. Knowing "how to" purchase, store, prepare, and serve safe and nutritious foods was the emphasis at that time, as it was in the nutrition education profession as a whole. It was assumed that consumers armed with adequate nutrition information and skills would make the appropriate food choices (behavioral change) for optimal health. USDA's program evaluations were based mostly on distribution and usability of materials and used relatively simple and quick evaluation tools that focused on knowledge gain. In those days, EFNEP was an exception--EFNEP evaluations looked at food intake from the basic four food groups at entry into and exit from the program.

Then the paradigm for effective nutrition education began to shift. Nutrition education research began to show that nutrition education efforts were more likely to be effective if they focused on bringing about behavioral change (Contento, et al, 1995). Just having knowledge about food and nutrition does not necessarily motivate people to make dietary changes. Nutrition education programs are now being asked to be accountable for achieving behavioral change, rather than just knowledge gain, and evaluating for it. USDA has become responsive to this trend. The EFNEP Reporting/Evaluation System was developed in 1993 by the CSREES in partnership with the CES and, recently, FCS added an evaluation component to

its FY '97 Guidance for Submitting Food Stamp Program Nutrition Education Plans. Also, FCS began an evaluation of the impact of Team Nutrition on the nutrition skills and eating behaviors--over time in school and at home--of fourth and seventh grade students in participating and comparison schools.

It should be noted, however, that many of the agency nutrition education activities described in table 1 (p. 31) are related to the development and distribution of information of the "how-to" kind--information that is *instrumental* for applying nutrition and food safety concepts to selecting a healthful diet, but is not of itself *motivational*. These activities, which develop and provide nutrition and food safety information for individuals who seek it, are an appropriate responsibility of Government and are also essential parts of the nutrition education process.

The Working Group's review of USDA's past evaluations found that:

- 1) There are few published or unpublished evaluation data currently available to verify the effectiveness of specific, individual nutrition education efforts
- 2) Evaluation efforts planned and conducted at the Federal level result in more adequate data than State or local evaluation efforts
- 3) The three programs legislated for nutrition education (WIC, EFNEP, and NET) have some requirements for conducting evaluations, but the standards and guidelines are not consistent among programs
- 4) Programs for which nutrition education is not a legislated component rarely evaluate effectiveness of their efforts.

There are, however, a number of evaluation initiatives currently underway that address the concerns listed above. USDA-sponsored programs are beginning to include evaluation components more regularly--for example, Team Nutrition, Nutrition Impact Indicator Project of CES, some recent USDA competitively funded nutrition education projects listed in table 3 (p. 43), and a host of other USDA-supported State and local nutrition education projects listed in table 2 (p. 36). Additionally, the CSREES in partnership with CES has recently developed, and is currently using, its EFNEP Evaluation/Reporting System, which it considers a model of participatory research and evaluation. The grassroots input into its development has allowed it to provide useful data to the Federal partner.

As emphasized during the conference "Charting the Course for Evaluation: How Do We Measure the Success of Nutrition Education and Promotion in Food Assistance Programs?" sponsored by FCS on July 13-14, 1995, **the ability to conduct evaluations is continually challenged by a shortage of funds allocated for that purpose.** Often, available funds are applied to maintain program delivery, rather than for evaluation.

Overall program effectiveness is best demonstrated when based on evaluation results that provide comparable data. However, USDA agencies generally have little control over final implementation of most nutrition education programs they currently sponsor. The legislation authorizing WIC, for example, does not provide USDA with any real authority over how nutrition education contacts are carried out within the context of the program, nor does it

legislate specific reporting requirements for such efforts. For many programs (e.g., NET, WIC, Cooperative Extension System base programs, Food Stamps) each State determines its own needs, specific target audiences, delivery mechanisms, and evaluation methods. Therefore, data from those evaluations may not be readily available or else they may end up too disparate to combine and analyze on a national basis.

For nutrition education provided in the context of a food assistance program such as WIC, it is difficult to separate the impact of the nutrition education component from the impact of providing the food package. Thus, evaluation of the nutrition education component often focuses on client knowledge gain and satisfaction, rather than on dietary behavioral change.

Finally, it is important to emphasize that for any nutrition education program to be effective, environmental changes may also be required. People must have access (economic as well as physical) to healthful food choices and safe exercise/activity areas in order to improve their diets and lifestyles for optimal health. Nutrition education does not substitute for economic food assistance, but it can make that food assistance more effective in improving nutrition and health outcomes.

3

USDA does not have a consistent mandate to conduct nutrition education throughout all its food programs.

In June 1995, USDA declared its renewed vision for nutrition education to develop consistent, effective, science-based and consumer-oriented nutrition promotions. The legislation under which the Department is currently working, however, is inconsistent with those goals and is perpetuating the fragmentation of nutrition education efforts in USDA's agencies and programs.

Nutrition is a priority at USDA and nutrition education is an essential customer service of the Department. In 1862 when the Department was first created, it was given broad authority to acquire and diffuse useful information on subjects relating to agriculture and home economics. In 1953, an amendment specified nutrition as one of these subjects. Today, nutrition education is legislated in only three of USDA's programs: the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC); the Expanded Food and Nutrition Education Program (EFNEP); and the Nutrition Education and Training (NET) program.

From time to time since the late 1970's, legislation has authorized special nutrition education improvements and pilot projects for the child nutrition programs, Food Stamp participants, and other low-income audiences. These projects have helped integrate the former Extension Service education programs with food assistance programs, but such activities were not mandated.

Historically, the delivery of nutrition education to the public was the responsibility of the Extension Service, now part of the Cooperative State Research, Education, and Extension Service (CSREES). This agency has the advantage of a direct link to the target clientele through their State and county "partners." Over the last 15 years, FCS has become more active in nutrition education primarily by providing technical assistance to professional and paraprofessional educators and by funding analysis and research activities. Increasingly, a greater proportion of resources has been directed successfully toward program-specific activities in collaboration and partnership between CSREES and FCS.

In a time of tighter funding, joint ventures between USDA agencies make sense to pursue. In the past, mechanisms such as Memoranda of Understanding, cooperative agreements, and contractual mechanisms have been used between and among various USDA agencies to help deliver program-focused nutrition education. For the future, alternative delivery mechanism(s) to the traditional program-focused delivery structure could offer additional ways to increase exposure to and diffusion of nutrition information across a broader spectrum of the American public. A comprehensive, cross-cutting nutrition education plan that ensures by mandate or directive that cooperative efforts at the Federal, State, and community levels are continually implemented, and which redirect program-specific efforts to a broader audience, would ensure a more consistent, effective delivery of nutrition education during the ebbs and flows of changing government priorities and funding over time.

4

Many USDA nutrition education efforts have failed to expand due to static Federal appropriations and inflation.

Undependable appropriations have undermined the resources needed to implement nutrition education in some programs. Inflation has further weakened the purchasing power of appropriations that have remained constant in other programs. All of this can result in less effective nutrition education efforts and fewer people being served.

The Department's earliest legislation directed nutrition education efforts to all Americans. Later, starting in the 1970's, a set of specific program enactments or amendments authorized nutrition education in the food assistance programs to low-income populations. Today, USDA's nutrition education program expenditures continue to be highly concentrated on low-income, food assistance populations. In 1995, approximately 83 percent of USDA's nutrition education expenditures were directed to low-income audiences (WIC, EFNEP and FSP). Another 12 percent went to children (NET and Child Nutrition Program projects that are not restricted to low-income) and just 5 percent to the "general public."

Funding trends indicate that nutrition efforts in WIC, NET, and EFNEP, the three programs with legislated nutrition education, may be hampered by undependable appropriations and inflation. EFNEP started in 1968 as a pilot project with \$10 million. Since 1982, annual appropriations for EFNEP have peaked at \$50-60 million and have since remained essentially stagnant, decreasing in real dollar value to a level only slightly above that received as a pilot project in 1968. Since its inception in 1978, NET funding has vacillated. In 1979 funding was \$26 million, plunging in the 1980's to \$5 million. It was minimally restored in the 1990's but lost buying power to inflation in recent years. For WIC, while actual nutrition education expenditures grew steadily during the 1980's as total WIC program funding increased, the rate of growth has declined. Effects of inflation have been moderated since 1989 when WIC administrative funding (including nutrition education) began receiving adjustments based on the inflation rate for State and local government purchases.

There is one exception to the issue of decreased nutrition education expenditures-- Federal matching funds used for nutrition education in the Food Stamp Program. Between FY 1994 and FY 1995 there was a 280-percent increase and between FY 1995 and FY 1996, just over a 200-percent increase in Food Stamp nutrition education expenditures due to an increased interest by State agencies electing to implement or continue to implement a Food Stamp Nutrition Education Plan. Under Section 16 of the Food Stamp Act of 1977, as amended, the Federal Government may reimburse a State agency 50 percent for allowable administrative program costs. The sustainability of nutrition education efforts in the Food Stamp Program dependent on this type of funding mechanism, however, is quite volatile for several reasons. First, because State costs by law are reimbursed, the Food Stamp Nutrition Education Program is not a "grant" program in which a set level of funding is provided for specific activities. Second, funds may not be carried over from one fiscal year to the next. Third, Federal reimbursement is subject to the availability of Federal funds. Even modest cuts in

Federal support of the matching funds program would severely curtail Food Stamp Program nutrition education efforts, unless more permanent fiscal measures are devised and implemented.

In today's economic environment it is becoming evident that the paradigms USDA has used in the past for funding structure and delivery mechanisms are not the most cost-effective ways to deliver nutrition education, particularly with a renewed goal to reach all Americans. Broadening the target audience to all Americans means going beyond programs that have legislated nutrition education. The Department needs alternative ways to maximize use of existing program funds and leverage them in cost-effective ways that will reach a larger target audience.

Recommendations for Consideration

Enactment of the Government Performance and Results Act (GPRA) of 1993 has provided USDA, throughout its agencies, an opportunity to incorporate the latest available scientific research and technology findings into its nutrition education plan for the Year 2002. The GPRA provides an opportunity to translate the recommendations in this report into performance results leading to a cost-effective, comprehensive, and coordinated nutrition education plan.

Recent trends in the Department's nutrition education efforts indicate a responsiveness to the social and environmental changes now facing us by moving towards more cross-program efforts. However, to achieve a cost-effective, integrated, and comprehensive nutrition education program for the next century, the Department as a whole must commit to change now. In partnership with States and local communities, USDA must pursue a vision to fully integrate nutrition education into all of its food programs and coordinate all existing efforts into a comprehensive, strategic plan for nutrition education and promotion that leverages the energies and resources found at the Federal, State, and local levels. We must develop and adopt a strategic plan to RENEW, RETOOL, and REFUEL nutrition education at USDA.

RENEW - We must revive what has worked best in the past, build on those successes, and rejuvenate by adapting to the current environment. USDA's authorizing legislation called for serving all Americans. Successive legislation over time has caused USDA's nutrition education efforts to become focused primarily on three of its programs (NET, EFNEP, and WIC) and directed to certain segments of the American population, i.e., low-income populations. And, there are still nutrition programs without formalized nutrition education mandates. In the spirit of renewal, these trends need to be reversed. To renew its nutrition education efforts, USDA needs to:

- ◆ ***Make Nutrition Education a Priority.***

Make nutrition education a Departmental priority to benefit all Americans. A long-term, comprehensive, coordinated strategic nutrition education plan is needed that has measurable objectives and a consistent commitment of funds for cross-program efforts. Such a plan should be incorporated into the Department's GPRA strategic plan, with input from all agencies and their State and local partners.

- ◆ ***Reach Out to All Americans.***

Regardless of any food program affiliation, commit to providing consistent, science-based nutrition education programs to all Americans, designed to motivate behavioral change to improve dietary habits.

- ◆ ***Put Nutrition Education into All USDA Food Programs.***
Structure an overall framework and guidelines for nutrition education applicable to all USDA food program efforts, particularly those that currently have no formal, sustainable mandate to conduct nutrition education because the Department does not have a written policy or their legislative authorization does not require it.
- ◆ ***Link with Constituencies.***
Foster efforts within the Department at the State and local level that bring together the constituencies for USDA's nutrition education programs--such as State agricultural colleges; NET, based in State education departments; EFNEP, based in the Cooperative Extension System county offices; and WIC, based in State and local health departments--to pool resources, expertise and outreach to more effectively address needs of their common clientele. The expertise and involvement of local nutrition professionals are essential to meet needs of an increasingly culturally diverse population with limited funds.
- ◆ ***Nurture Partnerships and Coalitions.***
Establish and maintain effective partnerships and collaborations outside the Department at the Federal, State, and community levels, and with non-Federal organizations.

RETOOL - We live in dynamic times in science and technology. Stagnation can happen quickly. Strong leaders must continually seek and build new skills, be open to change, and prepare for new paradigms. Behavioral change and accountability are two such paradigms; both depend on evaluations for documentation. To retool with a focus on behavioral change, evaluation, and accountability, USDA needs to:

- ◆ ***State Behavioral Change as an Objective.***
Update or create and promote Departmental policies to include behavioral change as a program objective, if that is a standard against which USDA's future nutrition education interventions will be evaluated for effectiveness.
- ◆ ***Evaluate All Projects.***
Continue to emphasize evaluation (i.e., process, outcome, and cost-effectiveness) by making it a routine component of USDA-sponsored nutrition education grants and cooperative agreements. Consider stipulating an appropriately set percentage of project funds be used for evaluation purposes (e.g., 15 percent). A commitment to require and collect such evaluations, based on established minimum guidelines, would help identify strengths and weaknesses that could provide direction for building effective efforts in the future. Also, preparation of basic evaluation standards and guidelines and establishment of core criteria would provide consistent program evaluation data for all USDA-sponsored efforts that could be compiled and analyzed on a national scale in order to

ensure outcome assessment. Only then will adequate data be available to provide direction for improving program efforts.

◆ ***Refocus Training.***

Provide technical assistance and training opportunities to upgrade the nutrition education and evaluation skills of State and local staff and enable them to incorporate behavioral-change strategies and evaluations into their activities.

◆ ***Refocus Research.***

Support additional research in the behavioral and social sciences on cost-effective designs and validated instruments appropriate for use by local agencies, on evaluation methodologies, and on innovative information transfer technologies.

To do this, a retooling of resources is necessary, such as staff training on evaluation and development of a "how-to" guide. To help in the development of evaluation standards, guidelines, and tools, fully utilize available staff and funds by establishing interagency and cross-program coordination to capitalize on the unique expertise in various agencies. Several current activities can serve as models for steps in this direction:

- EFNEP Evaluation/Reporting System that combines dietary assessment and a behavioral checklist, plus perinatal impacts
- Cooperative Extension System's Nutrition Impact Indicators Project
- ERS support of evaluation of the CSREES/FCS-WIC nutrition education initiative
- Community Nutrition Education Cooperative Agreements of 10 individual projects integrating nutrition education and resources through community-based consortia
- NET Needs Assessments and Evaluation Guides, providing "how-to" information for State NET Coordinators.

REFUEL - USDA needs to restore energy and excitement, and build commitment to nutrition education. Stronger communication links within the Department and between the Department and other Federal agencies and the private sector can be a refueling agent. Improved communication prevents duplication, fosters participation, encourages consistent messages, and builds staff enthusiasm and cooperation. Stronger funding mechanisms also will build commitment. The refueling of funds can help compensate for the effects of inflation on many nutrition education expenditures. To refuel communication efforts and funding mechanisms, USDA needs to:

◆ ***Make Information on USDA's Nutrition Education Activities Electronically Accessible.***

Establish a Departmental electronic data base that contains summary information on planned, currently ongoing, and recent nutrition education activities at the Federal, State, and local level, which can be accessed, searched, and

retrieved in a variety of ways. For example, the data base might include: project name, purpose, sponsor(s), funding/source, delivery methods, time frames, target audience(s), evaluation methods, contact person(s), etc.

This data base could facilitate timely preparation of Departmental reports on nutrition education activities, as well as inform and foster interagency cooperation in nutrition education efforts. Access to the data base by the professional community outside the Department would help others use the outcomes of USDA efforts to plan and implement future research and education programs and avoid duplication of effort.

- ◆ ***Follow-up with Reports.***

Require that any nutrition education activity sponsored with USDA funds follow-up with a brief project and/or activity report on its effectiveness (what works--"strengths"--and doesn't work--"barriers"). These reports would be submitted to USDA's National Agricultural Library, Food and Nutrition Information Center for easy access through literature searches. These reports can provide direction for future efforts.

- ◆ ***Publish and Share Project Information.***

Urge agency, State, and local program staff to publish and share information about effective program design and evaluation processes in professional journals and other academic publications, as well as the proposed electronic data base. This will broaden access to USDA's efforts by allied professions and make learning an experience based on both successes and failures. Of particular interest are discussions of how evaluation results can be used to improve program delivery.

- ◆ ***Sponsor Cross-Program Meetings.***

Encourage regional cross-program meetings to share information about ongoing nutrition education projects, delivery systems, and resources. One model for such a meeting is the FCS-sponsored Southeast Regional Nutrition Education Integration Conference, "Promoting Partnerships," held April 2-4, 1996, in Atlanta, GA.

- ◆ ***Explore Alternative Financing.***

Explore development of alternative mechanisms for pooling or redirecting available agency program funds and unique staff expertise for nutrition education projects that address common target audiences and objectives. To the extent possible, identify and remove bureaucratic barriers to developing cross-cutting projects that pool resources. One current model for this is the CSREES/FCS/ERS Nutrition Education Initiative targeted to the neediest WIC clients.

Foster, support, and utilize cost-effective, non-traditional, and creative funding mechanisms to fund and implement cross-program nutrition education efforts as a way to augment available Federal dollars: Interprogram coalitions, private sector partnerships and alliances, "matching" funds with local coalitions and State programs, and others. All of these can build community support, involvement, and "ownership" of nutrition education programs and develop useful strategies for evaluating program effectiveness and meeting participant needs.

Acronyms and Abbreviations

ARS	Agricultural Research Service
CES	Cooperative Extension System
CNPP	Center for Nutrition Policy and Promotion
CSFII	Continuing Survey of Food Intakes by Individuals
CSREES	Cooperative State Research, Education, and Extension Service
DHKS	Diet, Health, and Knowledge Survey
EFNEP	Expanded Food and Nutrition Education Program
ERS	Economic Research Service
ES	Extension Service
FCS	Food and Consumer Service
FSP	Food Stamp Program
FNIC	Food and Nutrition Information Center
FSIS	Food Safety and Inspection Service
GPRA	Government Performance and Results Act
KAB	Knowledge, Attitudes, and Behaviors
NAL	National Agricultural Library
NET	Nutrition Education and Training Program
OBPA	Office of Budget and Policy Analysis
WIC	Special Supplemental Nutrition Program for Women, Infants and Children

References

Contento, I., Balch, G.I., Bronner, Y.L., Lytle, L.A., Maloney, S.K., White, S.L., Olson, C.M., Swadener, S.S. 1995. The effectiveness of nutrition education and implications for nutrition education policy, programs, and research: A review of research. *Journal of Nutrition Education* 27(6):277-418.

Frazao, E. 1995. *The American Diet: Health and Economic Consequences*. Agriculture Information Bulletin No. 711.

Summer, L. 1995. *Assessment Methodology Report to the State of Nutrition Education in USDA Working Group*. Final Report to the Center for Nutrition Policy and Promotion. Unpublished.

Figures

Figure 1: Major Nutrition Education, Information, and Promotion Activities in USDA

This organizational graphic portrays the major agencies at USDA that are responsible for and conduct most of the nutrition education activities within the Department. Under each office title is a list of major activities the agency pursues to carry out its specific mission. This chart and fig. 3 show the diverse range of nutrition education efforts at USDA, including activities related to research, policy and guidelines development, and the translation and communication of information to an array of target audiences.

Figure 2: USDA Activities Contributing to Nutrition Education

This statement was formulated and adopted by the State of Nutrition Education in USDA Working Group as a framework for describing USDA's contributions to the nutrition education process. It lists seven activity areas that illustrate how the various agency efforts in total contribute to a process that provides consumers with an understanding of the relationship between diet and health and direction for improved dietary behavior. The last paragraph states an overall visionary goal for nutrition education in USDA.

Figure 1. Major Nutrition Education, Information, and Promotion Activities in USDA

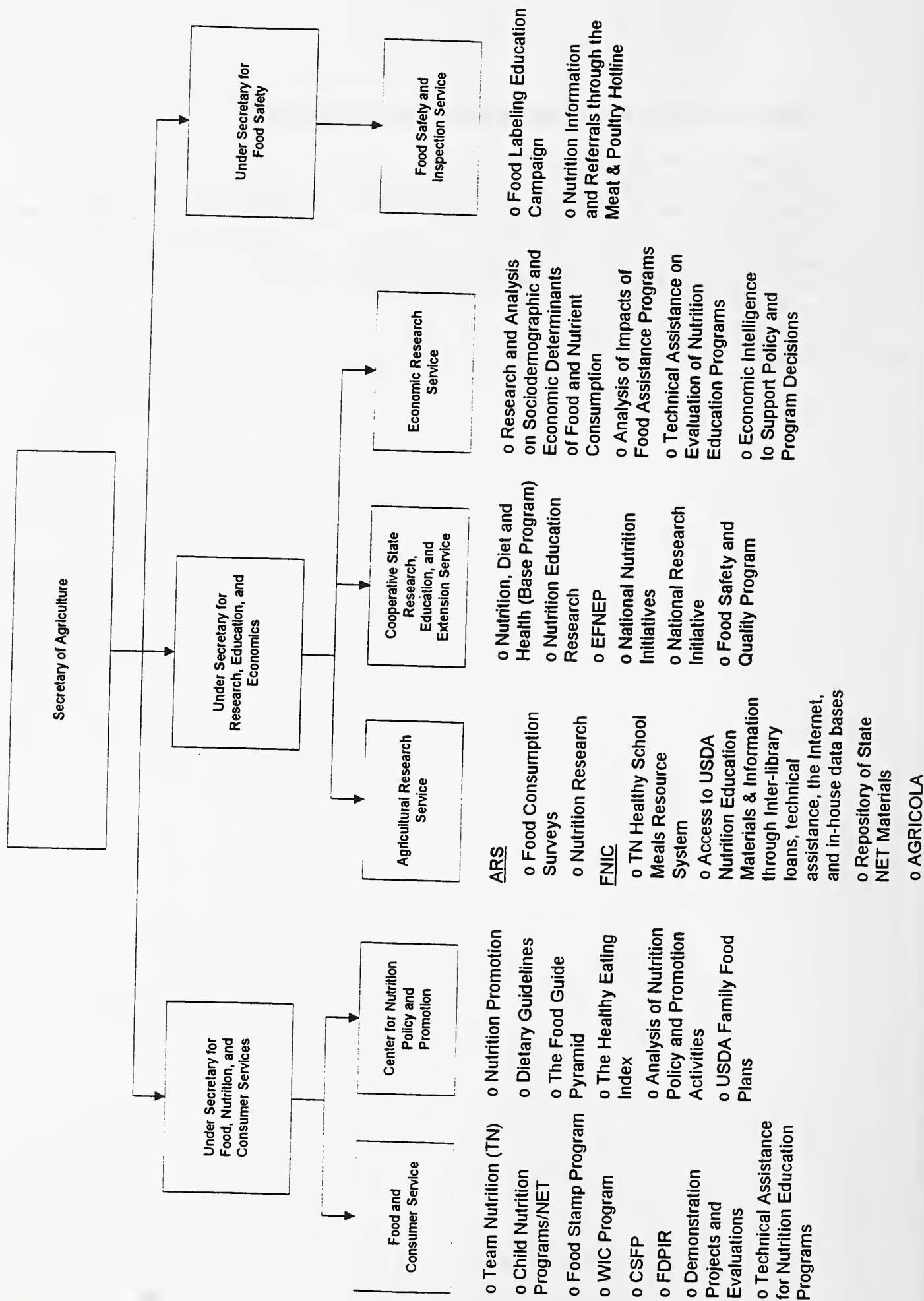


Figure 2: USDA Activities Contributing to Nutrition Education

USDA's nutrition education efforts assist consumers in making decisions about their eating practices and other nutrition-related behaviors based on knowledge from the nutritional and social sciences and provide an understanding of the relationship between diet and health. USDA contributes to this process through the coordinated efforts of its various agencies, including the following:

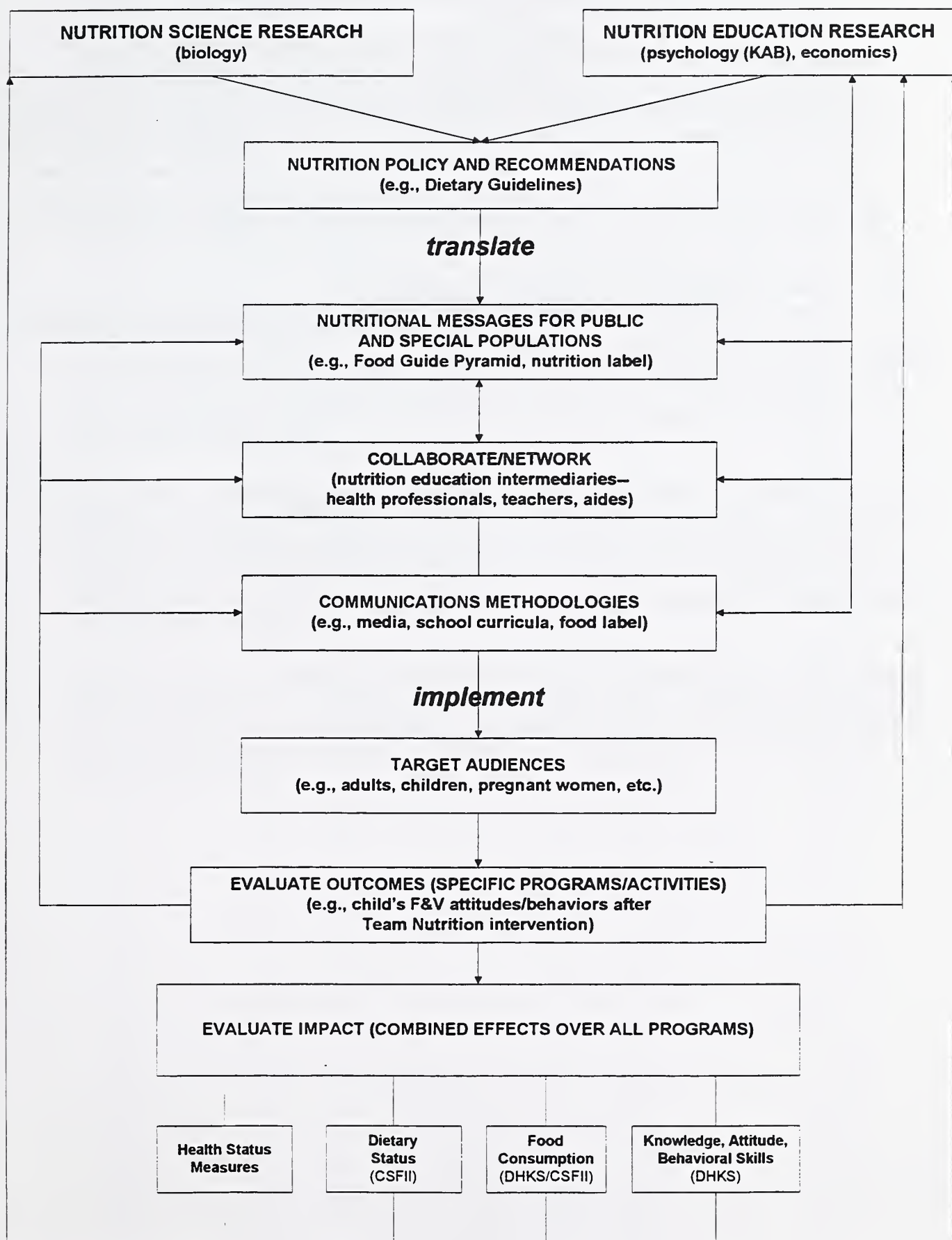
- ◆ Conducts nutrition education research to understand human behavior and to determine appropriate messages and methodologies to assist in the process of behavioral change;
- ◆ Conducts nutrition science research to define what constitutes a healthful diet and to monitor the public's nutritional status;
- ◆ Develops science-based nutrition policy and recommendations for healthy populations;
- ◆ Translates nutrition policy and recommendations into nutrition information for the general public and special populations;
- ◆ Collaborates with Federal, State, and professional organizations, and the private sector to achieve consistent nutrition information;
- ◆ Develops communication methodologies to deliver appropriate and effective nutrition messages, services, and programs; and
- ◆ Implements and assesses outcomes and impact of community-based and other nutrition education programs, services, and delivery systems.

USDA's overall nutrition education goal is to provide an integrated nutrition education program that contributes to a nutritionally knowledgeable public, motivated to make behavioral change(s) to promote optimal health and nutritional status.

Figure 3: Interrelationships in USDA Nutrition Education Activities

USDA's agencies engage in numerous nutrition education activities that together provide the necessary components for a nutrition education program that contributes to a nutritionally knowledgeable public, motivated to make behavioral change(s) to promote optimal health and nutritional status. Each agency has a specific mission to accomplish certain activities; these activities interrelate with the mission and activities of other USDA agencies. This figure illustrates the seven types of activities undertaken at USDA (defined in fig. 2) that together form the framework for a complete process for providing nutrition education to the public.

Figure 3. Interrelationships In USDA Nutrition Education Activities



Tables

The tables that follow provide summary information about examples of USDA nutrition education activities at the Federal, State, and community levels. Descriptions of those activities included are, of necessity, abbreviated; many other important agency activities such as participation on various coordinating committees could not be included. Some Working Group members were reluctant to include the tables in the report since they could not be complete. However, others felt the tables provided an important illustration of the broad range of topics, methods, and target audiences addressed by USDA-sponsored nutrition education activities. Thus, the tables have been included and the reader is cautioned to remember that:

- ◆ Examples are not exhaustive
- ◆ Examples are not nationally representative
- ◆ More information about specific projects may be obtained from the responsible agency or project contact.

Table 1: Example USDA Nutrition Education Program Activities

Table 1 illustrates the wide scope and types of nutrition education activities going on throughout USDA, but it is not an exhaustive listing, nor is it intended to describe the activities in detail. Details of agency activities can be found in the most recent copy of USDA's annual *Report on USDA Human Nutrition Research and Education Activities: A Report to Congress*.

This matrix presents a summary of many of USDA's recent and current program efforts (1993-95). It categorizes the example nutrition education program activities into the seven component activity areas defined in figure 2. Special programmatic research/demonstration projects are listed in one or more categories that are the major focus of the research. For example, the Food Stamp Community Nutrition Education Cooperative Agreements are listed under "collaborate/network" and "evaluate outcome/impact," because these agreements focus on researching the process of building and using community networks for nutrition education, and evaluating the effectiveness of the approaches tested. The results of this research can help to improve the organization and delivery of community-based nutrition education interventions in the future.

In this table, emphasis is placed on programs, rather than the agency responsible for the program; many programs benefit by cooperative activities of several agencies. For example, in the Nutrition Education Initiative for low-income pregnant and breastfeeding women, CSREES, FCS (WIC), and ERS are collaborating in developing and evaluating nutrition education interventions for the neediest WIC clients. (The 18 competitively funded projects in this initiative are described in greater detail in table 3.)

Another example of interagency cooperation is the CSREES memorandum of understanding with ARS's Children's Nutrition Research Center, Baylor College of Medicine. This MOU fosters the nutrition education practitioner-researcher interaction needed to direct research to practical problems and, conversely, to facilitate more rapid application of new research findings by practitioners.

TABLE 1.

EXAMPLE USDA NUTRITION EDUCATION PROGRAM ACTIVITIES

PROGRAM	RESPONSIBLE AGENCY(IES)	NUTRITION EDUCATION RESEARCH	NUTRITION SCIENCE RESEARCH	NUTRITION POLICY, RECOMMENDATIONS	TRANSLATE TO PUBLIC, SPECIAL POPULATIONS	COLLABORATE NETWORK	COMMUNICATIONS METHODS	EVALUATE OUTCOME IMPACT
RESEARCH								
Food consumption research	ARS ERS CNP	Diet/Health Knowledge Survey Food supply research Consumer economics/behavior Nutrients in food supply Diet analysis research	CSFII - dietary status	Monitoring recommendations		Interagency monitoring board	Journals, technical reports, Internet	DHKS/CSFII Impact on food supply
Nutrition research	ARS		HN Research Centers Mississippi Delta project Nutrient data bank	RDA Committee DG Advisory Committee	Nutrient database for CNP's	Conferences CSREES/CNRC/MSU Mississippi Delta Consortium	Journals, technical reports, Internet CD-ROM	
Regional research grants	CSREES	NC-Food consumption of young adults NE-Nut risk of elderly W-Dietary fat, fiber, K, A, B	W-Nutrient bioavailability NC-Dietary lipid recommend.			Land grant universities		1890-Eval of Intervent methods with rural elders
Research support	NAL / FNIC	Literature searches	Literature searches				Internet access	
GENERAL PUBLIC								
Dietary Guidelines	CNPP	DG focus group research		DG Advisory Committee	DG print materials	DG Working Group DG Alliance		1988 DG consumer evaluation 1988 DG diffusion study
Food Guide Pyramid	CNPP	FGP focus groups, message tests	Food guide servings database		Food guide publications	Technical assistance to FGP users		Healthy Eating Index
Nutrition base program	CSREES					CSREES / CES Strategic Plan for Nutr Adoption/diffusion of model programs		Nutrition Impact Indicators Project Adoption/diffusion of model programs
National Nutrition Initiative Food Safety and Quality Prog Dedicated for Health	CSREES	HELP baseline data collection			Food Safety and Quality projects Healthy Eating for Life Program	Multi-state / multi-institution Multi-state / multi-institution		
Food Label Information	FSS NAL / FNIC CNPP				Label regulations, review Label ed materials database Print materials	Nutrition/food safety educ task force	Telephone hotline	
Meal and Poultry Hotline	FSS				Print materials on safe handling		Telephone hotline	Caller / topic statistics
Bibliog/info services	NAL / FNIC				Nutri-Topics Special bibliographies Special materials databases	Natl Food Service Mgmt Inst. princp Natl Food Service Mgmt Inst. princp	Internet access / search Computer software / multimedia db	
CHILDREN								
CHILD NUTRITION PROGRAMS NET	FCS	State needs assessments TN focus groups		CNP media regulations	Technical assistance materials Curricula development Hispanic materials PSAs, curricula for kids	Natl Food Service Mgmt Institute State Education departments Headstart TN-multiplesy, communities	Training programs TV media, curricula, commun. activ	SNDA study NET Evaluation Guide Early childhood childcare study Team Nutrition schools evaluation
Team Nutrition								
LOW INCOME								
Food Stamps	FCS	Community nutr ed coop agmt National survey of FS recipients			Program materials Educational materials	FCS regions / state welfare State support networks coop agmt FS state matching grants Community nutr ed coop agmt	Print, poster, media FS nutr ed demonstration grants Interactive technologies grants	Conference on effective nutr ed Community nutr ed coop agreements State support networks coop agmt
	CNPP FCS	Use of TFP example menus, recipes	Thrifty food plan development	TFP marketbasket Food stamp elements	Menu/recipe examples	FCS regions / FS program		
EFNEP	CSREES				Program nutr ed materials	CSREES network, land grant univ.	Professors, para-professors, volunteers Individual visits, telephone group	EFNEP evaluation/reporting system
LOW INCOME PREGNANT WOMEN / CHILDREN								
Nutrition Education Initiative	CSREES FCS / WIC ERS	Cultural eating practices studies			Culturally appropriate nutr ed materials	EFNEP / CSREES / State agencies	Multimedia	ES-WIC Nutrition ed evaluation "Great Beginnings" evaluation
WIC	FCS	Infant feeding practices study WIC dietary validation study WIC food purchasing study		Regulations	Program materials WIC breastfeeding promotion	State health departments	Individual group, video WIC nutr ed demonstrations	WIC nutrition ed evaluation WIC dynamics study WIC breastfeeding promotion evaln

Table 1a: Example USDA Nutrition Education Program Activities - Target Audiences

This matrix organizes USDA nutrition education activities in table 1 by general type (research and evaluation, program delivery, or nutrition policy and regulations) and target audience. Information from research and evaluation activities and policy and regulations is targeted primarily toward the technical, professional, and government audiences for use in program planning. (Programmatic research projects are also listed under the target audience that is the specific focus of the research.)

Delivery activities are broadly dispersed among all target audiences. In most cases, USDA nutrition education programs are actually delivered through State and local program cooperators. Within certain program guidelines, the State and community cooperators have flexibility to determine the specific needs and topics to be addressed, delivery strategies to be used, and any evaluations that may be conducted. Unless efforts are made to ensure comparable evaluation data, overall program effectiveness is difficult to assess on a national level. The EFNEP Evaluation/Reporting System provides some evaluation data for local nutrition education efforts that can be compiled at a national level. Appropriate evaluation tools are needed for other USDA-sponsored nutrition education programs.

TABLE 1A.

EXAMPLE CURRENT USDA NUTRITION EDUCATION ACTIVITIES

ACTIVITY TYPE	AGENCY	TECHNICAL PROFESSIONAL & GOVT	GENERAL PUBLIC	TARGET AUDIENCE CHILDREN	LOW INCOME GENERAL	LOW INCOME WOMEN INFANTS AND CHILDREN
RESEARCH & EVALUATION CLINICAL / BIOCHEMICAL (human nutrition, food composition) MONITORING / POPULATION (food consumption and determinants; nutrition knowledge, attitudes, behaviors)	ARS	HN Research Centers Nutrient databank Regional research grants				
	CSFEES	CSFII and DHKS				
	ARS	Food supply research				
	ERS	Consumer economics / behavior res. Food security and hunger research Food assistance research			Food security and hunger research Food assistance research	
	CSFEES	Regional research grants Nutrition impact indicators				
MATERIALS DEVELOPMENT	CNPP	Nutrients in food supply Diet analysis research				
	CNPP	Food guide development Healthy Eating Index DG focus group research	DG focus group research Food guide focus group research			
	FCS	Team Nutrition focus groups		Team Nutrition focus groups		
	FCS/CNP	NET State needs assessments School Nutr. Diet. Assmt Early childhood childcare study		NET State needs assessments School Nutr. Diet. Assmt Early childhood childcare study		
	FCS/FS	Team Nutrition schools evaln		Team Nutrition schools evaln		
PROGRAM DEVELOPMENT & EVALUATION (program needs assessment, implementation, evaluation, and dissemination)	FCS/FS	Natl survey of FS recipients Community nutr ed coop agmts Nutr ed demonstration grants State matching grants			Natl survey of FS recipients Community nutr ed coop agmts Nutr ed demonstration grants State matching grants	
	CNPP	Interactive technologies grants Use of TFP ex menus, recipes Thrifty food plan development			Interactive technologies grants Use of TFP ex menus, recipes	
	CSFEES	EFNEP evaluation reporting sys Adoption/diffusion of model prog			EFNEP evaluation reporting sys Adoption/diffusion of model prog	
	FCS/WIC	Infant feeding practices study WIC dietary validation study WIC food purchasing study WIC nutrition ed evaluation				Infant feeding practices study WIC dietary validation study WIC food purchasing study WIC nutrition ed evaluation
	ERS	WIC dynamics study WIC breastfeeding promotion WIC nutrition ed demonstrations ES-WIC nutrition ed evaluation "Great Beginnings" evaluation				WIC dynamics study WIC breastfeeding promotion WIC nutrition ed demonstrations ES-WIC nutrition ed evaluation "Great Beginnings" evaluation
RESEARCH SUPPORT	NAL / FNIC	Literature searches / info services				

EXAMPLE CURRENT USDA NUTRITION EDUCATION ACTIVITIES

ACTIVITY TYPE	AGENCY	TARGET AUDIENCE				LOW INCOME GENERAL	LOW INCOME WOMEN INFANTS AND CHILDREN
		TECHNICAL PROFESSIONAL & GOVT	GENERAL PUBLIC	CHILDREN			
DELIVERY DIRECT	CSFEES	Paraprofessional training	Nutrition base programs	4-H programs	ERNEP		
COLLABORATIVE	CSFEES	National Nutrition Initiatives Food Safety & Quality Programs Decisions for Health	National Nutrition Initiatives Food Safety & Quality Programs Decisions for Health		FS State Matching Grants (Family Nutrition Programs)	ES-WIC Nutrition Ed Initiatives	
	FCS / CNP	State education departments School food service training NET Teacher training Natl Food Service Mgmt Instit.	Parent materials	School curricula School meals Team Nutrition program	Head Start parent materials	Preschool materials	
	FCS / WIC	State health departments Breastfeeding peer counselors					Indiv counseling, group, video Posters, print
	NAL / FNIC	Foodborne illness Educ Info Center Healthy School Meals Resource Ctr School foodservice software evaln	Info services on a limited basis	Info services to CNP professionals	Homeless Nutr Ed Resource Guide	Info services to WIC professionals	
	CNPP FCS FSS NAL / FNIC	Dietary Guidelines reports Food label regulations Information Internet access/search	Dietary Guidelines promotions Food label education campaign Internet access/search		Dietary Guidelines materials		
INDIVIDUAL	FSS NAL / FNIC	Meat & Poultry Hotline Electronic access to publications	Meat & Poultry Hotline Electronic access to publications				
	CNPP / ARS	Dietary Guidelines for Americans Dietary Guidance Working Group					
	FCS FSS	School / child care meals regulations Meat and poultry labeling regulations					
NUTRITION POLICY & REGULATIONS							

Table 2: Example **Current** USDA-Supported State and Local Nutrition Education Projects

This table compiles information on many examples of nutrition education projects currently being implemented at the State and local levels, arranged alphabetically by State. The listing is not exhaustive, nor are the examples intended to be a nationally representative sample. However, they illustrate a variety of noteworthy projects from many States across the Nation. The projects listed cover a wide range of target audiences, topics, and delivery methods. Many of them show cooperation across agencies and programs at the community level, involving NET, WIC, EFNEP, and other Cooperative Extension System program efforts targeted to limited-resource families and children. Other community health organizations are often involved.

Messages based on the Dietary Guidelines and the Food Guide Pyramid are adapted and presented as appropriate for the target audience. Programs for the general public emphasize reduction of risk for chronic disease such as heart disease and cancer through applications of the Dietary Guidelines and the Food Guide Pyramid in making food choices, maintaining healthy weight, and obtaining adequate exercise. Information on using the new food label is also a frequent topic. For food assistance program participants, information about good nutrition and food safety is often integrated into other life-skills education, including education on parenting, money management, and health care referrals.

Delivery methods represent a range of strategies, often incorporating innovative media and technologies and encouraging active participation of the learner. In non-school settings, individual counseling, home or hospital visits by peer counselors, group classes, food demonstrations and tasting parties, gardening programs, and summer camps are used to present information about good nutrition and encourage healthy food choices and exercise habits. Information is presented in videos, newsletters, fact sheets, TV and radio spots, telephone hotlines, and interactive computer programs. Many programs use trained nutrition assistants and peer counselors to augment the efforts of professional nutrition educators in delivering nutrition education, especially to a culturally diverse clientele.

Many of the projects incorporate evaluation components, which may provide information on program outcomes and effectiveness that can enhance planning of future program initiatives. However, the diverse nature of the project topics, target audiences, and evaluation measures and procedures makes it difficult to compile information on program effectiveness at a national level. Developing and disseminating guidelines for planning and collecting basic evaluation data may encourage more and higher quality evaluation efforts in the future.

EXAMPLE USDA SUPPORTED STATE AND LOCAL NUTRITION EDUCATION PROJECTS

TABLE 2.

STATE	PROJECT	COOPERATORS	TARGET AUDIENCE	TOPICS	DELIVERY METHODS	EVALUATION	CONTACT
Alabama	Alabama Extension Programs	CES Auburn Tuskegee Alabama A&M FCS - WIC	Non-elderly, non-limited resource Elderly WIC participants in remote villages	reduce fat intake control high blood pres. eat fruits, veg, grains	CES programs	lower fat intake controlled HBP report more fruit, veg	Ester Jarin, Director 907/ 543-6459
Alaska	Alaska Yukon-Kuskokwim Health Corp Central Arizona College (CAC) Child Nutrition Certificate Prog Arizona State University AZ Prevention Resource Ctr	FCS - CNP FCS - CNP FCS - CNP FCS - CNP AZ Dept Health AZ Dept Health	School food service Teachers Child care providers School food service Students, K-6	school food service good nutrition prevention health-related mats. 5 A Day	video exchange program cooking demos on occas. visits 17 credit hrs/seminars resource center lesson plans poster unique to AZ		Glenna McColium, MPH, RD 520/ 426-4497
Arizona	AZ Dept Educ/Child Nutr Program "Eat Right, the AZ Grown Way" AZ Dept Education "1994-95 NET Grant Booklet"	FCS - CNP FCS - NET	School food service Minigrant applicants	good nutrition health-related mats. 5 A Day example projects			APPC 602/ 727-2772
Arkansas	Arkansas Extension Programs	CES	Seniors Overweight adults	exercise, wellness calorie control	"Senior Inn" program "NoonLilting" program	reduc in risk behavior weight loss, decr body fat	Kathy Rice, RD, NET Coord. 602/ 542-8713
California	California NET "SHAPE California" campaign California Dept of Education "5 A Day Power Play" "5 A Day Adventures" CD ROM California "Choose Well, Be Well"	FCS - NET FCS - NET CA Dept Health Dole Foods SNE FCS - NET	Schools Families Communities Students, 4,5 grade Parents Students, 3rd grade Students, preK-12 Teachers School food service	healthy food choices nutr ed resources 5 A Day broad scope of food & nutrition	"how to" manual "Strategies for Success" integrated curriculum support materials Spanish translations newsletter, cookbook, email WWW for schools comprehensive, sequential, integrated curriculum 17 nutrition videos, by teens for teens; "Personal Best", "Grow Series" food photo cards of F&V participatory group nutr ed variety of languages		Marilyn Briggs, CA NET Coord 916/ 323-2468
California	California Public Health Foundation Enterpr. California Extension Programs	FCS - WIC CES State Health Dept	Multi ethnic WIC participants Nutrition professionals	pediatric obesity	ad hoc interdisciplinary committee on children and weight literature review Inservice training kit teaching tools for use with parents	incr knowledge improved attitudes twd overweight children and adults	Sally Livingston, CA NET 916/ 322-2152
California	California Public Health Foundation Enterpr. California Extension Programs	FCS - WIC CES State Health Dept	Multi ethnic WIC participants Nutrition professionals	pediatric obesity	ad hoc interdisciplinary committee on children and weight literature review Inservice training kit teaching tools for use with parents	incr knowledge improved attitudes twd overweight children and adults	Jacqueline Smith, CA NET 916/ 445-0405
California	California Public Health Foundation Enterpr. California Extension Programs	FCS - WIC CES State Health Dept	Multi ethnic WIC participants Nutrition professionals	pediatric obesity	ad hoc interdisciplinary committee on children and weight literature review Inservice training kit teaching tools for use with parents	incr knowledge improved attitudes twd overweight children and adults	Kiran Saluja 818/ 856-6662
California	California Public Health Foundation Enterpr. California Extension Programs	FCS - WIC CES State Health Dept	Multi ethnic WIC participants Nutrition professionals	pediatric obesity	ad hoc interdisciplinary committee on children and weight literature review Inservice training kit teaching tools for use with parents	incr knowledge improved attitudes twd overweight children and adults	Joanne P. Ikeda, CES 510/ 642-0535
Colorado	Colorado NET projects Commerce City, CO Olathe, CO Littleton, CO Thompson School District R2-J Annunciation School	FCS - NET	Students Middle/high school Kindergarten students Parents High school students Students - grades 3-8	school breakfast fruits & vegetables cooking nutrition education various, aspec. heart health	tasting parties analyze own diets, plan menus; computer programs cooking with kids videos for parents hands on involvement with district child nutr. programs "accelerated reader" books on nutrition topics	incr school breakfast incr consump f&v reduction in absentees parent feedback positive computer tests	Paula Cockwell 303/ 287-1362 Lorraine Shide 303/ 323-5521 Lynn Ferguson Debra Blernal, teacher 303/ 669-4955 Sharon Burke, 3 gr. teacher 303/ 295-2515

TABLE 2.

EXAMPLE USDA SUPPORTED STATE AND LOCAL NUTRITION EDUCATION PROJECTS

STATE	PROJECT	COOPERATORS	TARGET AUDIENCE	TOPICS	DELIVERY METHODS	EVALUATION	CONTACT
Colorado	Colorado Extension Programme	OES	Elderly	reduce dietary fat Incr fruit, vegetables	"Healthwise for Life" program	reported descr in fat Incr fruit, veg consump	
	Colorado Dept of Education, CO "The Healthy Edge in Schools"	FCS - CNP, NET	School food service	meals to meet the Dietary Guidelines	treating classes	follow-up survey re changes made	Judy Schure, CO Dept Educ, 303/ 868-6654
Florida	Florida Extension Programs	OES	Pregnant teens	nutrition, fitness resource mgmt, parenting	"Choices" curriculum peer educators experiential learning videos		
			Adult consumers	Nutrition for Health & Fitness Dietary Guidelines Pyramid	experiential learning models "Taking Control" program Toward Permanent Weight Mgmt program	change in high risk behaviors	
Georgia	Candler Co, GA	FCS - FS CES - EFNEP	FS - Single parents	menu planning stretching resources healthy food choices recipe cards	2 hour classes, small groups home follow-up visits	pre/post 24 hr recall food behavior surveys	JoAnn McCloud-Harrison EFNEP Coordinator 706/ 542-8866
Hawaii	Hawaii	FCS - FS	FS participants		recipe cards sent with ATP		Joda Derickson, EFNEP 808/ 956-3840
Idaho	"Akamal Annie" Idaho Extension "Nanas" for WIC	CES - EFNEP FCS - WIC CES - Home Econ.	WIC teenage mothers	simple meals smart shopping	home visits by trained "Nana"		Kathy Wallerhaupt, CES 208/ 667-6426 Tanya Chestnut, WIC Coor 208/ 667-5415
Illinois	Illinois "Chicago Nutrition Education Ctr"	FCS-WIC	WIC recipients	healthy shopping food preparation breastfeeding	WIC mini-mart WIC demonstration kitchen breastfeeding counselors computer-assisted programs low-cost / free classes		Erinda Bengay, Director 312/ 227-8022
			Community residents	health promotion prevention of chronic diseases			
	Illinois Family Nutrition Program (50:50 match)	FCS-FS OES	FS recipients / eligibles	gardening sports nutr for kids drug/nutrient interac for older adults	demonstrations, classes newsletters fact sheets		Tim Grace, FS 217/ 782-1355 Robin Orr, Extension 217/ 244-2855
Indiana	Indiana Farmers Market Nutrition Prog.	CES-EFNEP FCS-WIC	WIC recipients	nutrition/preparation info on fresh veg, fruit	provision of fresh fruits/veg	Incr purchase and use of fresh fruits/veg	Joe Leary, FS 317/232-6997
	Indiana Family Nutrition Program (50:50 match)	FCS-FS OES	FS recipients / eligibles 28/92 counties, not served by EFNEP	food & nutrition food safety resource management food skills	classes / groups demonstrations home visits newsletters / fact sheets		Jane Clary, FNP Coor 317/ 496-2488
Iowa	Iowa WIC "Building and Strengthening Iowa Community Support for Breastfeeding"	FCS - WIC	Community groups	breastfeeding promotion	breastfeeding promo needs assessment tool community coalition building manual	data from 4 target coalitions breastfeeding initiation rates, number of coalitions increased	Laura Sands 515/ 279-3424
Kansas	Kansas Extension Programs	OES Kansas Health Fdn CES-EFNEP FCS-WIC	4-H Youth WIC recipients and their children	Dietary Guidelines Pyramid reduce fat, incr activity Pyramid food groups nutr for young child parenting	4-H curriculum "WIC Kitchen" program, focusing on food selection, preparation	baseline data on diet, body fat, activity habits Incr grains, fruits and vegetables, milk less sweets	Paula Pefers, 913/ 532-1668

TABLE 2.

EXAMPLE USDA SUPPORTED STATE AND LOCAL NUTRITION EDUCATION PROJECTS

STATE	PROJECT	COOPERATORS	TARGET AUDIENCE	TOPICS	DELIVERY METHODS	EVALUATION	CONTACT
Kentucky	Kentucky Extension - EFNEP	CEB-NEP FCS-WIC	Young children	Pyramid food safety	EFNEP staff work with children at WIC clinic sites activities, crafts, parent handouts	measurements of children's knowledge	Kathy Daily-Kozel, EFNEP 606/ 257-5631
Louisiana	Louisiana Extension Programs	CES	Caregivers of young children	dietary guidelines for young children Pyramid	"Feeding Young Children, 2-5" activities, recipes for adults to do with children		
Maryland	Maryland Extension Programs	CES	Consumers	Dietary Guidelines Food Guide Pyramid food labeling	classes	reported changes in food consumption	
Michigan	Michigan Family Nutrition Program (50:50 match)	FCS-FS CES	FS recipients / eligible in all 83 counties	general nutrition food safety resource management menu planning	demonstrations, groups videotapes print materials telephone hotline		Sue Peterson, MI soc. serv. 517/ 335-3094 Lynn Himebauch, Extension 517/ 353-9102
Minnesota	Minnesota Family Nutrition Program (50:50 match)	FCS-FS CES	FS recipients / eligible in 71 counties	tailored to constituents	on site "learn while you wait" classes, indiv counseling newsletters, etc. Master Gardeners summer nutrition day camps child/parent homework		Cindy Westbrook, MDept Hlth 812/ 297-5977 Bonnie Braun, CES 612/ 625-1201
Missouri	Maryville, MO Eugene Fields School "Nutritional Education Training Committee"	FCS - NET	School staff Parents Students K-6	Pyramid new foods healthy food choices	classroom activities lunchroom activities nutrition games inservice training catereria food bar	participation	Roberta Richey, NET Coord. 314/ 751-6183
	Columbia, MO, CNP	FCS - CNP	Students	fresh fruits & vegetables	posters classroom nutr education taste-testing fruits & vegetables	school meals production records skin milk use	Pat Brooks, school food serv. 573/ 888-2110
	Pattonville School District, MO "Mind Over Mouth"	FCS - CNP, NET	Students K-6	Pyramid Dietary Guidelines	monthly theme lesson plans school meals	nutritionel trends in school meals	Rick Marlam, dir. F&N serv. 314/ 213-8054
	Missouri Extension Programs	CES	Consumers Elderly	healthy lifestyles risk reduction	workshops, presentations, health fairs, newsletters university-supported "Food and Nutrition Resource Network"		
		CES FCS-FS	Food Stamp participants: elderly, pregnant and parenting teens, youth	healthy food choices exercise resource management	"Survival Skills" for women (workshops) "Great Beginnings" curriculum (pregnant teens) weekend programs		
Nbraska	Nebraska Extension Program Women's Wellness Weekends	CES	Women	health/wellness nutrition and other factors		pre/post test avoid high fat foods; choose fruit/low cal desserts; incl fiber	
New Hampshire	New Hampshire Extension Great Beginnings program Planning Ahead...Staying Ahead	CES	Pregnant teens Consumers	total calories, iron, vitamin A, folate managing food budgets	trained teen peer educators activities, recipes, handouts marketing and PR videos lessons	impr nutrition knowl. impr nutrient intake reported intention to try new skill	

TABLE 2.

EXAMPLE USDA SUPPORTED STATE AND LOCAL NUTRITION EDUCATION PROJECTS

STATE	PROJECT	COOPERATORS	TARGET AUDIENCE	TOPICS	DELIVERY METHODS	EVALUATION	CONTACT
New Jersey	New Jersey Extension Programs	CES	Consumers Elderly	food and fitness nutrition labeling food safety "Nutrition for Mature Adult"	5 session program; diet/exercise analysis; supermarket tours; video, skill sheets senior center lecture series "Dialing Dilemma" program	numbers of people reached; numbers reporting adapting e healthier lifestyle behavior	
New Mexico	New Mexico WIC "Garden of Excellence: WIC Facilitated Discussions"	FCS - WIC	Women correctional facility inmates WIC nutr educators	weight management with diet/exercise how to conduct facilitated discussions	workshops videoteleconference with local activities	pre/post training eval 8 month follow up (Penn State eval)	Jane Peacock, WIC Deanna Torres 505/ 476-8522
New York	New York Schenectady Co Integrated Community-Based Nutr Ed	FCS-WIC CES-EREP CES-base prog Head Start Senior Nutr Prog	Food program participle	consistent nutrition messages	Integrated, "one-stop" enroll- ment, education, services coor by local Extension		Barbara Norton-Lorraine 518/ 372-1622
North Dakota	North Dakota Extension Programs	CES	Teen parents with a child under 1 year	nutrition for parent and infant child development	"Parenting Pals" program classes	50 teen parents in 3 counties	
	Bismarck, ND	FCS - NET	Students (high school occupational child care & nutrition)	Pyramid	development of video & kit by HS students for elementary students		Food Service Director/ Vocational Home Ec Instruc. Loris Friel, Dept Public Ins. 701/ 328-2294
Ohio	Ohio Family Nutrition Program (50:50 match)	FCS-FS CES	FS recipients / eligibles Rural poor	Dietary Guidelines Pyramid commodity foods budgeting	demonstrations, group lessons newsletters, fact sheets peas on radio, tv	opinion cards focus groups	Tom Lisak, Dept H.S. 614/ 644-6915 Joyce McDowell, FNP Coor 614/ 292-4481
	Ohio Extension Programs	CES	Nutrition educators	nutrition in the supermarket	satellite teleconference	90 participants at 12 sites	
		CES James Cancer Hospital	Public	Decisions for Health: Assessing Your Cancer Risk	satellite teleconference	400 participants in 24 states	
Oregon	Oregon Dept of Education Nutrition Awareness Contest	FCS - NET	Students, K-12	good nutrition proper eating habits	contest poster classrooms submit projects	66 class submissions In 1995	Terri Lloyd-Jones 503/ 373-5156
	Oregon WIC "Breastfeeding Connection"	FCS - WIC	Local WIC agency staff	recommendations research findings type	monthly newsletter	positive comments share with local public health nurses	Debi Van der Mey 503/ 731-4125
	Oregon Food Stamp Program	FCS-FS CES	Emergency food recip.	State nutr ed info-- budgeting, shopping, preparation	Info in emergency food boxes		Caroline Cannon, ext. agent 503/ 725-2022
Pennsylvania	Pennsylvania Extension Programs	CES PA Coalition on F&N, county health depts, etc. CES-EREP	Users of emergency food systems Latino families	parenting education resource management parenting and nutrition	"SuperCupboard" community network model		
		CES	Parents, EFNEP educators	lat modified menus for children over 4 years nutrition labeling	Spanish translations of EFNEP materials, taught by bi-lingual student interns menus brochures, exhibits		
		CES FCS-WIC	Peer breastfeeding counselors	peer breastfeeding counselor and client breastfeeding materials	training courses, 1 and 2 day	38 partic in training Interven. in 12 counties	

TABLE 2.

EXAMPLE USDA SUPPORTED STATE AND LOCAL NUTRITION EDUCATION PROJECTS

STATE	PROJECT	COOPERATORS	TARGET AUDIENCE	TOPICS	DELIVERY METHODS	EVALUATION	CONTACT
Rhode Island	Rhode Island Central Falls' Kids First	FCS-WIC FCS-CNP Hasbro Tufts University	Low income children Low income parents WIC recipients, elig.	breakfast econom., nutr. meals preparation	Breakfast Club promotions Breakfast in the Classroom Volunteer chefs Green Thumb gardening proj. Community Steering Committee	school breakfast partic. summer meals partic. chef classes partic.	Gayle Kelly 617/ 627-3956
South Dakota	South Dakota NET projects Armour School District Aberdeen School District Tiffany Elementary "Safeguarding the Future"	FCS - NET	Elementary students - grade 1 Elementary students Secondary students	personal responsibility good food choices		incr awareness of choosing foods from each food group repts eating changes by children & parents	Marlene Silbaugh, teacher 605/ 724-2698 Bev Snow, teacher (1st gr) 605/ 626-7177 Kim Stewart 901/ 325-3857
Tennessee	Memphis City, TN "Safeguarding the Future"	FCS - NET	Secondary students	Dietary Guidelines	curriculum grocery store tours eval own health status through anthropometric measures		
	Jefferson Co, TN "Links for Living"	FCS - NET	Secondary students	dietary fat			Anna Jean Cabbage 423/ 397-3194 Norma Lee 423/ 397-3182
Texas	Sumner Co, TN "Nutrition Mission II" Texas WIC Breastfeeding Peer Counselors Breastfeeding Educator Training Texas Extension Programs	FCS - NET CES - UTenn FCS - WIC CES	Students Parents Pregnant and breast- feeding women Peer counselors Health providers Family community educators-peer teachers Older adults	school breakfast breastfeeding recom. info, tips increasing fiber weight control Pyramid		participation in school breakfast increase in breast- feeding 50% reported incr use of whole grain products decr fat, sodium intakes incr activity, abil to eval health claims	Linda Becker 615/ 451-5217 Janel Rourke, WIC Jawell Stremier Texas Dept of Health 512/ 406-0744
Utah	Utah Extension Programs	CES	Native American Indians	reduce fat and sugare food safety money management	diabetes screening and nutrition counseling conference on fetal alcohol syndr		
		CES	Ute Tribe youth, 9-10, 11-13 yrs.	nutrition, food prep diabetes preventn physical activity	6-week youth summer program	60% report diet changes less sweets, chips; more vegetables	Georgia Lauritzen 801/ 797-3484
Virginia	Virginia Extension Programs	CES	Teen parents, Headstart parents Army personnel Adults, children, youth	food and nutrition smart shopping	"Living Better for Less" program 30-min radio spots on local sine		
		CES	Dietary Guidelines Pyramid reduce heart disease, cancer risks weight management new food label		workshop/seminar series courses, training programs lean camp (Camp Lighten-up)	overall almost 50% reported incr knowl and skills to change dietary habits	
Washington	Washington EFNEP Program	CES-EFNEP Pierce Co. govt. CES-EFNEP Family Focus- Youth at Risk	EFNEP homemakers Teen parents EFNEP youth	gleaning to incr food availability nutrition parenting gardening	gleaning project using EFNEP homemaker volunteers Integrated nutrition-parenting curriculum Master Gardeners teach youth	320,000 lbs additional food; gleaners contrib 3,600 hours vol. time	

TABLE 2. EXAMPLE USDA SUPPORTED STATE AND LOCAL NUTRITION EDUCATION PROJECTS

STATE	PROJECT	COOPERATORS	TARGET AUDIENCE	TOPICS	DELIVERY METHODS	EVALUATION	CONTACT
Washington	Washington Office of Public Instr. "A Healthier Future, Home Study Program for Child Care"	FCS - NET	Child care providers	Dietary Guidelines Implement in child care facilities	5 lessons, quick quizzes, summary, worksheets	evaluation sheet	Carol Griffith, NET Coor 360/ 753-3580
	Washington State Northwest Indian College Nutrition Assistant program	FCS - FDP/IR CES - EFNEP	Native American paraprofessionals	healthy food prep Pyramid exercise	"Honor the Gift of Food" cult. approp. curriculum		Tim Gilbert, Director 206/ 324-9360 x1140
	Washington Food Stamp Program	FCS-FS CES	Elderly		newsletter refrigerator cards		Sue Burkus, Ext. FN Specialist 208/ 840-4553
			School age children	Pyramid food safety snack select & prep food & fitness	classroom presentations parent materials		
Wisconsin			Children		half-day summer day camp		
	Wisconsin "Nutrition Power"	FCS-CNP, NET SFSA CES	Children School food service School administration Families & commun.	effective nutrit ed healthy food choices health promot, envr. partnerships	comprehensive training Init. - self-assessments - strategic planning wkshps - skills development		Julie Allington, DPI 608/ 267-9120
	Wisconsin Family Nutrition Program (50:50 match)	FCS-FS CES WICBHP	FS recipients / eligibles In 44 counties High risk, culturally diverse	Dietary Guidelines Pyramid food safety smart shopping, budget	"learn while you wait" group, one-on-one, demonstr. local cable and radio master gardeners summer camps local Hunger Preventn Councils		Joan Lockyear, FS 608/ 267-1430 Larry Jones, EFNEP 608/ 262-9908
	Wyoming Extension Programme	CES	Consumers	using greater variety of vegetables & fruits	"Super Sales" program promoting 5 salads with variety of F&V	use of new vegetables, Incr consump of F&V	
Puerto Rico	Puerto Rico Extension Programme	CES	Extension home econom.	Food Pyramid of PR new food label	training meetings to increase knowledge and skills of staff	clients reduced fat cons. Incr veg & fts, adopt	
FDP/IR Projects Kansas	Potawatomi FDP Mayette, KS	FCS - FDP/IR KS-WIC	FDP/IR recipients	modification of traditional recipes	demonstrations & supervised preparation		Mary LeClere, Director 913/ 986-2718
	Wind River Reservation, WY	Wyoming EFNEP	FDP/IR recipients	use of dried beans	home visits by trained paraprofessionals		Linda Mekher, WY EFNEP 307/ 766-5181
	Standing Rock Sioux IR, ND		FDP/IR recipients and children	dealing with diabetes use of commodities	chef use commodities to prepare tasty dishes		"Red" Gates, Dir. FDP 701/ 854-7238
	Fresh Fruit & Vegetable Pilot		FDP/IR recipients	storage & handling of fresh produce	prepare tasty dishes	children impr attit. Incr. FDP/IR participn	

Table 3: Some Recent USDA Competitively Funded Nutrition Education Projects

USDA has recently awarded funds for several "umbrella" nutrition education projects. They were competitively awarded to a variety of organizations, including Federal, State, and other organizations. The projects cover a wide range of target audiences (men/women, various ages, and culturally diverse), topics, delivery methods, and geographic locations.

One of the four "umbrella" projects was intended to help identify effective processes to build community networks and to provide technical assistance. Another of the projects was to combine the strengths of and model effective coordination of two USDA agencies successful in serving low-income audiences. And, two of the projects were intended to identify applied research-based processes and technologies. Through technical assistance, USDA can disseminate research-based processes and technologies that can enhance planning and delivery of more effective nutrition education through its programs.

Safe handling of foods is also an important component of achieving a healthful diet. A set of 14 projects competitively funded by CSREES as part of the Food Safety and Quality National Initiative provides examples of educational programs for both producers and consumers aimed at reducing incidence of food-borne illness and enhancing consumer understanding of food technology.

TABLE 3. SOME RECENT USDA COMPETITIVELY FUNDED NUTRITION EDUCATION PROJECTS

PROJECT	STATE	COOPERATORS	TARGET AUDIENCE	TOPICS	DELIVERY METHODS	EVALUATION	FUNDING STATUS	CONTACT
FOOD STAMP NUTRITION EDUCATION DEMONSTRATION PROJECTS - 7 PROJECTS								
Purpose: To support development, implementation and evaluation of creative community nutrition intervention programs directed toward FSP participants.								
Univ of Hawaii Extension Service	Hawaii	RCS CESERNEP	FS participants	eating better for less	mailed brochure 10-15 minute video 8 2-hour lessons	pre/post date for 5 groups diet behavior; food frequency	awarded 9/93 2-year projects Total \$500,000 Final report 9/95	Elaine McLaughlin, FCS 808/ 958-3840
Univ of North Carolina, Dept of Public Health	North Carolina	RCS	FS participants	food preparation	Interactive computer program In FS office	stage of change; self-efficacy diet behavior/knowledge	Final report 9/95	Marci Campbell 919/ 956-4796
Univ of California Extension Serv	California	RCS CESERNEP	FS participants	fruit and vegetable preparation	food/drama videotape in cooking show format; shown in FS offices	self-admin. pretest; phone followup post-test; knowledge changes	Final report 9/95	Ann Joy 510/ 887-0143
Univ of Arkansas Extension Serv	Arkansas	RCS CES	FS participants	food preparation food/money management	low literacy pamphlets mailed monthly children read to parents	survey focus groups	Final report 9/95	Rosemary Rodbaugh 501/ 671-2000
Rutgers Cooperative Extension	New Jersey	RCS	Seniors	shopping, cooking food preparation	four stage program: counseling, lecture, demonstration	pre/post diet recall survey on food purchase/prep	Final report 9/95	Anne Marsden 609/ 625-0056
Douglas-Cherokee Economic Authority, Inc.	Tennessee	RCS	Women, men, homeless, teen parents	Food Guide Pyramid curriculum	16 hours of education	pre/post test; attitude/behav grocery store receipts	Final report 9/95	Fay McElhany 615/ 587-4500
White Mountain Apache Tribe	Arizona	RCS White Mt Apache	FS participants on reservation	food preparation dietary patterns	cooking demonstrations and classes led by community members	process and outcome eval awareness, knowledge changes food habits/food frequency	Final report 9/95	Alliea Valasquez 602/ 338-4300
COMMUNITY NUTRITION EDUCATION COOPERATIVE AGREEMENTS - 10 PROJECTS								
Purpose: To encourage local areas to develop a strategy to integrate nutrition education services with food assistance programs and other community activities.								
Reading Farmer's Market Trust Philadelphia, PA	Pennsylvania	FCS - WIC, CACFP Public schools Housing Authority	Families, children WIC	Food Guide Pyramid fruit & vegetables	multidimensional nutrit ed focus on community farmers markets	process eval of consortium child/adult K, A, and F&V consumption	awarded 9/94 2-year projects	Sandra Sherman 215/ 928-1029
Univ of Colorado, Health Sciences	Colorado	RCS-CSEFP ERNEP	Elementary students Parents Community	Dietary Guidelines	elementary school nutrit ed teacher training, parent workshops menu changes	process eval of network devel. students/parents/teachers K, A, behavioral intentions	\$220,307	Cathy Romanello 303/ 270-5401
Seattle-King WIC Division, County Health Department	Washington	Head Start Food Stamps ERNEP	School children Food banks, WIC, FS	single theme messages 5-e-day topics	interactive food and cooking demonstrations, conducted by volunteer chefs, paraprofessionals	process eval of consortium changes in K, A related to F&V as func of exposure to Intervn.	\$235,777	Meredith Poehlitz 206/ 296-4853
Contra Costa Prevention Program, County Health Department	California	FCS - CACFP ERNEP FS (Soc Serv Dept) Amer Cancer Soc	FS participants Day care providers	food budget disease prevention feeding children	nutr ed at social service office mailings, training workshops presentations, demonstrations at grocery stores, health fairs	process eval of implementn pre/post nutrition K by survey of workshop participants	\$214,717	Donna Coll 510/ 646-6511
County Health Department San Bernardino "Good News" (Nutr Ed WorkS)	California	Head Start, WIC, FS, CES Food Relief Netwk	FS participants, WIC primarily Hispanic	healthy eating low cost purchasing	nutr info with mailed FS benefits, WIC and ESOL classes peer teachers recruited from food program participants	process eval of implementn pre/post nutrition K, A, behav intentions, by questionnaire	\$210,218	Paula DeSilva 909/ 387-6320

SOME RECENT USDA COMPETITIVELY FUNDED NUTRITION EDUCATION PROJECTS

TABLE 3.

PROJECT	STATE	COOPERATORS	TARGET AUDIENCE	TOPICS	DELIVERY METHODS	EVALUATION	FUNDING/STATUS	CONTACT
Great Lakes InterTribal Council "Minwunjigewin"	Wisconsin	WIC, MCH, CES Foster Auntie Prog WI Div of Health	WIC, FS participants at 11 Indian reservations	cooking skills good taste & good for you	training of paraprofessionals in hands-on activities, cult. approp info for home visits, group cls.	process evaln of implementn each tribal site a case study pre/post nutrition K increase	\$215,608	Paula Havisto 715/ 588-3324
City of Dallas Dept Environmental and Health Services, WIC	Texas	FS, WIC, EFNEP Head Start, Schools ACS, AHA, etc	WIC, FS participants Head Start, schools	Food Guide Pyramid economical shopping	point of purchase program with 3 supermarket tours; trained peer conduct tours	process evaln of Smart Shoppers changes in K, A, skills for four participants; quasi-experiml	\$140,953	Hazel Catlett 214/ 670-0514
Florida State University Tallahassee Community	Florida	WIC, NET, EFNEP Dept Health School district	Middle school students WIC, FS participants	low fat, high fiber food	home economics classees cooking clubs - schools, commun. taste testing, videos in WIC	process evaln of consortium change students K, A, B change WIC, FS partic K, A	\$174,693	Jenice Rankins 904/ 644-4792
Community Food Resource Center New York City Central Harlem Collaborative	New York	FS, School Food S. ACS, AHA, etc. 5 universities	Herlem elementary and middle school students Day care providers FS participants	seeing less fat and eat increasing fruits and vegetables	univ graduate nutrition students teach in elem & middle schools community event school lunch changes	process evaln of collaborative, changing school menus, nutr ed curriculum	\$221,863	Toni Liquori 212/ 344-0195
University of Arkansas	Arkansas	WIC, FS, EFNEP School district	Rural elemen students Parents	Dietary Guidelines	changing menus in cafeteria nutr ed to children parent newsletters, grocery info	process evaln of implementn pre/post nutr K, A of children, parents, teachers	\$158,827	Kathy Hosig 501/ 686-5714
INTERACTIVE NUTRITION EDUCATION GRANTS - 6 PROJECTS								
Purpose: To demonstrate and evaluate technology or innovative practices that allow recipients of nutrition education and promotion messages to tailor the message to their specific interests and needs.								
Texas Agricultural Extension Serv	Texas	FS CES	WIC, FS participants Asian, Black, Hispanic, white	Food Guide Pyramid food buying, prep	CD-ROM, modules 5th grade writing level voice-over	focus groups for user satisfaction self-reports behav ch	awarded 9/95	Kilolo Kijakazi, FCS
Univ of North Carolina, Chapel Hill	North Carolina	FS	Low income women WIC/health clinics	Food Guide Pyramid prenatal nutrition	kiosks at clinics, using self- admin. software on CD-ROM, laser disc	surveys of diet behav, knowledge, skills	awarded 9/95	
Univ of California, Berkeley	California	FS	Low income English, Spanish families	food intake assesmt Teen Nutrition themes tailored for ethnic grp	soap opere, Informercial formal diet assessment, nutr ed on CD-ROM, placed in clinic	Pretests, observations ext interviews	awarded 9/95	
New Mexico State University	New Mexico	FS	Low income people Navajo, Hispanic English	Food Guide Pyramid Team Nutrition themes shopping	Interactive, touch screen trilingual community locations	process, outcome eval. focus groups for user satisfaction, behav ch	awarded 9/95	
Univ of Massachusetts, Amherst	Massachusetts	FS	Low income GED and ESOL students Young preg/parenting women, drop outs	monitoring fat intake diet analyze nutrition questione Team Nutrition themes	free CD-ROMs to schools Internet-accessible computer bulletin board	student and teacher surveys of knowledge interest, practices	awarded 9/95	
DINE Systems, Inc. Buffalo, NY	New York	FS	Elementary school students, teachers	Food Guide Pyramid	Interact diet assessment by FGP Pyemid Challenge CD-ROM, point/click or touch screen curriculum for teachers	dietary intake of users comp to curric. only, or neither	awarded 9/95	

TABLE 3. SOME RECENT USDA COMPETITIVELY FUNDED NUTRITION EDUCATION PROJECTS

PROJECT	STATE	COOPERATORS	TARGET AUDIENCE	TOPICS	DELIVERY METHODS	EVALUATION	FUNDING/STATUS	CONTACT
ES/WIC NUTRITION EDUCATION INITIATIVE - 18 PROJECTS								
Purpose: To change the behavior and promote the nutritional well-being of the neediest WIC participants by combining the strengths of two of USDA's successful low-income programs: CES food and nutrition programs and WIC.								
Culturally Relevant Nutrition Education for Vietnamese WIC	California	CES WC	Urban Vietnamese	EFNEP curriculum maternal, infant nutr.	culturally adapted curriculum promotional flyers in Vietnamese Vietnamese paraprofessionals	knowledge pre/post infant feeding practices	FY93 \$ 99,800 FY94 \$135,440 FY95 \$180,747	Joanne Ikeda 510/ 642-2790
Abuelas to Teach Hispanics, Migrant Farm Workers	Colorado	CES WC	Rural Hispanics	preschool child nutr. resource book healthy kitchen videos	distance learning for professionals and paraprofessionals cult. adapted ed by "grandmothers"	exploratory focus groups	FY93 \$ 97,765 FY94 \$126,953 FY95 \$173,832	Jennifer Anderson 303/ 491-7334
Addressing Nutr Needs of Haitian Women, Preg & Breastfeeding	Florida	CES WC	Haitian	weight gain food choices, health habits, breastfeeding	videos, using Haitian actresses familiar locations adapted curriculum after school classes; home visits group activities	exploratory field research on cultural practice	FY93 \$ 89,892 FY94 \$135,837	Linda Cook 904/ 392-2090
TAMS Integrated Nutrition & Health Program	Georgia	CES WC	Prenatal teens	food preparation skills goal setting	school & WIC classes inter-generational home teaching	knowledge pre/post attitudes, food group intake weight gain	FY93 \$ 57,380 FY94 \$ 68,665 FY95 \$ 75,000	JoAnn McCloud-Harrison 706/ 542-8866
EXCEL- Early Experiences and Counseling for Effective Lactation	Guam	CES WC	Teen Pacific Islanders	breastfeeding video	peer counseling with WIC, EFNEP materials	EFNEP instrum word/pict nutrient knowledge	FY93 \$ 73,460 FY94 \$149,345 FY95 \$170,034	Rebecca Pobock 671/ 734-2579
Peer Network of Nutrition & Breastfeeding Support	Iowa	CES WC	Rural pregnant & breastfeeding women	breastfeeding basics lessons on food groups	education by trained peers baby feeding calendar; tip sheets	knowledge of healthy diet food group intake breastfeeding behavior	FY93 \$ 61,923 FY94 \$ 66,000 FY95 \$ 57,200	Elisabeth Schaler 515/ 294-6507
Infant Nutrition for Hispanic WIC Peer Education Model	Maryland	CES WC	Hispanic first time mothers in WIC esp Central and S. Amer	infant feeding practices	peer support, home visits, incentives	exploratory survey K,A,B of mothers infant health, diet	FY93 \$ 89,004 FY94 \$159,674 FY95 \$172,947	Jean Ann Anliker 301/ 405-1006
Breastfeeding Support	Michigan	CES WC	Rural, urban	breastfeeding referral to EFNEP	peer support, home visits, incentives	knowledge/skills pre/post breastfeeding behavior client eval of counselor	FY93 \$ 74,588 FY94 \$199,950 FY95 \$200,000	Charlotte McKay 517/ 353-9102
Making Life Healthy	Minnesota	CES WC	Native American teens pregnant & parenting 4 year old children	food shopping, safety food prep, low-cost Food Guide Pyramid	group, individual sessions, on 5 videos, 1 food laboratory "Kida In the Kitchen"	pre/post survey focus groups behav in plan, shop, safety	FY93 \$ 37,000 FY94 \$ 43,074 FY95 \$ 46,183	Sharon O'Gorman 218/ 847-3141
Nutrition Educ Needs of Hispanics In Nevada	Nevada	CES WC	Hispanics, esp. Mexican	prenatal, infant diet food safety money management	cultur. adapted EFNEP curriculum Spanish speaking assistants supermarket tours	EFNEP behavior checklist knowl plan, shop, safety	FY93 \$100,000 FY94 \$100,000 FY95 \$200,000	Jamie Benodict 702/ 784-6445
Building Blocks for Toddlers	New York	CES WC	New mothers of toddlers English & Hispanic	toddler curriculum; activity sheets	individual sessions in home group sessions parent mentoring	toddler food record nutrient intake behav in meal planning	FY93 \$ 84,500 FY94 \$136,786 FY95 \$136,786	Muriel Brink 807/ 255-7715
Breastfeeding Support	North Carolina	CES WC	Rural, urban breastfeeding WIC clients	breastfeeding	support in home and in hospital by EFNEP paraprofessional esp during first two weeks	knowl of lactation diet food group servings breastfeeding behaviors	FY93 \$ 98,357 FY94 \$157,000 FY95 \$200,000	Ngale M. van Eck 919/ 515-2782

TABLE 3.

SOME RECENT USDA COMPETITIVELY FUNDED NUTRITION EDUCATION PROJECTS

PROJECT	STATE	COOPERATORS	TARGET AUDIENCE	TOPICS	DELIVERY METHODS	EVALUATION	FUNDING STATUS	CONTACT
Pregnant Adolescent	North Carolina	CES WC	Prenatal teens	teen nutrient needs Food Guide Pyramid infant feeding	18-lesson teen nutr curriculum small groups, "hands-on", experiential activities	knowl of prenatal diet food group servings infant birth weight	FY93 (JI with above) FY94 \$ 25,000 FY95 \$ 28,800	Ann Frazier 919/ 515-8478
Pregnant Teens in Chickasaw Nation WIC	Oklahoma	CES WC	Native American prenatal teens	prenatal diet	adapted curricula: Have a Healthy Baby or Eating Right is Basic	knowl/behav pre/post food groups, nutrients birth weight	FY93 \$100,000 FY94 \$180,000 FY95 \$189,312	Glenna Williams 405/ 744-6283
Southeast Asian Nur Ed	Rhode Island	CES WC	Cambodian	Cambodian food guide pyramid breastfeeding	video in soap-opera format with Cambodian actresses, language breast support, home visits	exploratory focus groups food group servings	FY93 \$ 61,962 FY94 \$ 60,874 FY95 \$ 72,897	Linda Sabella 401/ 277-3984
Nutrition Ed for Women (NEW)	South Carolina	CES WC	Rural Preg/parenting teens and adults	parenting money management	augmented service for "Healthy Children" programs home visits, mail, videos, telephone lessons	nutrient intake food preparation practices	FY93 \$100,000 FY94 \$109,157 FY95 \$129,068	Katherine Sharman 803/ 656-5722
Better Mothers and Children Proj.	Texas	CES WC	Hispanics African Americans	Food Guide Pyramid child nutrition food safety & prep	Spanish/English CD interactive modules; group sessions	computer scen pre/post knowl of Food Guide Pyr.	FY93 \$ 98,000 FY94 \$100,051 FY95 \$112,995	Kathleen Ladewig 409/ 845-6379
Parents and Children Growing Together	Washington	CES WC	Rural Hispanics	feeding children family relationships stress management	classes, critical thinking & problem solving methods	focus groups for planning	FY93 \$ 98,842 FY94 \$151,430 FY95 \$163,498	Sue Butkus, CES

TABLE 3. SOME RECENT USDA COMPETITIVELY FUNDED NUTRITION EDUCATION PROJECTS

PROJECT	STATE	COOPERATORS	TARGET AUDIENCE	TOPICS	DELIVERY METHODS	EVALUATION	FUNDING/STATUS	CONTACT
FOOD SAFETY AND QUALITY NATIONAL INITIATIVE - 14 PROJECTS								
Purpose: To provide educational programs aimed at reducing the incidence of food-borne illness.								
A HACCP Implementation Model for Small Independent Operators	Utah	EFHQ	Small independent operators	pathogens HACCP systems	35 hours of classroom training	point scoring system	\$93,944	Jan Singleton, CSREES (202) 720-8855
An Interdisciplinary Approach to Food Biotechnology Education for High School	Montana	EFHQ	Youths	biotechnology	high school classroom module	Impact Indicators	\$34,921	
Understanding Food Safety and Irradiation Technology in the Meat Industry	Iowa	EFHQ	Extension personnel	meat irradiation & technology	training video and educational tools	Impact Indicators	\$39,000	
Science and Society	California	EFHQ	Communities in California and Indiana	food irradiation & food biotechnology	Information dissemination model video, written material, discussion	pre/post discussion questionnaires; content analysis	\$40,000	
Safe Food Laws through Better Informed Public and Legislators	Maine	EFHQ	State legislators	prevent sale of food preserved by irradiation	issue focused information packets	Impact Indicators	\$24,400	
Implementing Quality and Safety Management Systems in Retail Seafood Departments	Texas	EFHQ	Full service seafood departments of coop supermarket chains	standard operating procedures	using HACCP and TQM principles	Info collected before and after implementation	\$57,694	
Educational Program to Increase Consumer Understanding of Food Irradiation	Texas	EFHQ	Consumers and meat case personnel	food irradiation	educational programs, bulletins, training seminars	interviews and Impact Indicators	\$38,865	
Implementation of TQM and HACCP Concepts for Processing Aquacultural Products	North Carolina	EFHQ	Aquaculture firms	TQM and HACCP	three manuals	Impact Indicators	\$66,000	
A National Project to Apply TQM Practices to Dairy Farms	Pennsylvania	EFHQ	Dairy farmers	dairy farms	train-the-trainer workshop	Impact Indicators	\$77,374	
Farm Use of the FARAD Program	Pennsylvania	EFHQ	Producers	food animal residue avoidance	computer program	Impact Indicators	\$19,395	
Biotechnology: Public Input about Regulations and Market Choices	Washington	EFHQ	Consumers	biotechnology	interactive educational program	levels of awareness	\$34,600	
Food Animal Product Safety: A Youth Education Program	Washington	EFHQ	Youths in WA and OR	food animal product safety	UC series science education model	Impact Indicators	\$58,296	
National Recommendations for Disaster Food Handling	Tennessee	EFHQ	Communities	harmonize food handling	disaster and emergency situations	Impact Indicators	\$48,813	
Biotech Chautauqua: Providing Experiences in Biotechnology and Food	Wisconsin	EFHQ	Communities	food safety	forums, workshop, hands-on	Impact Indicators	\$40,000	

Appendix A

State of Nutrition Education in USDA Working Group Members

CNPP

Bill Layden
Director, Nutrition Promotion Staff

Anne Shaw
Nutritionist, Nutrition Promotion
Staff
Co-Chair, Working Group

Nancy Gaston
Nutritionist, Nutrition Promotion
Staff
Co-Chair, Working Group

Carole Davis
Chief Nutritionist

FSIS

Marjorie Davidson
Director, Food Safety Education

Charles Edwards
Director, Product Assessment Division

FCS

Jill Randell
Program Analyst, Special Nutrition Staff
Office of Analysis & Evaluation

Patricia Daniels
Branch Chief, Nutrition Services and Edu-
cation Branch
Nutrition & Technical Services Division

ARS

Frankie Schwenk
National Program Leader for Applied
Nutrition
National Program Staff

Sandy Facinoli
Coordinator, Food and Nutrition
Information Center
National Agricultural Library

CSREES

Elizabeth Tuckermanty
National Program Leader, Family, 4-H and
Nutrition Unit
Cooperative State Research, Education and
Extension Service

Edith Thomas
National Program Leader, Family, 4-H and
Nutrition Unit
Cooperative State Research, Education, and
Extension Service

ERS

Donald Rose
Senior Economist, Food & Consumer
Economics Division

Jon Weimer
Agricultural Economist
Food & Consumer Economics Division

OBPA

David Hoyt
Program Analyst

Pat White and Barbara O'Brien from FSIS also participated.

Appendix B

Historical Overview of Nutrition Education at USDA

The Organic Act of 1862 established the Department and authorized it to "acquire and diffuse among the people...useful information on subjects connected to agriculture...." Through research initiated in the 1890's USDA's W.O. Atwater began the scientific basis for connecting food composition, dietary intake, and health. Science-based food guides were developed by USDA nutritionists beginning about 1916 and disseminated in programs of the Cooperative Extension Service, which was established in 1914 by the Smith-Lever Act to provide people with "useful and practical information on subjects relating to agriculture and home economics."

In the 1930's, USDA food economists developed buying guides in the form of family food plans at four cost levels, an activity that continues today. One of the lower cost food plans (the Thrifty Food Plan) serves as the basis for food stamp program allotments. In the 1939 Yearbook of Agriculture *Food and Life*, Secretary Wallace noted that "the lack of common-sense knowledge of nutrition even among many well-to-do people in the United States is appalling...." USDA food economists urged greater attention to research on food consumption as a basis for recommending dietary improvements and noted the importance of motivating people to change food habits, as well as programs to increase purchasing power of many poorer families.

In 1941, at the National Nutrition Conference for Defense--memorable for its release of the first set of Recommended Dietary Allowances, USDA participants noted that many families spent enough money on food but did not obtain an adequate diet; however, they also acknowledged that the less there was to spend, the greater was the need for skill in meal planning, in food buying, and in meal preparation. The Conference recommended teaching good food habits in schools at all levels and to both sexes, and exploring the educational possibilities of school lunch; also, greater attention should be given to research on economic and psychological factors affecting food consumption. Participants in a session focused on nutrition education suggested 10 characteristics of a truly effective nutrition program--characteristics still considered important and recommended today (table 1).

As a result of the conference, many private groups and government agencies developed media-type materials--posters, pamphlets, food charts, and press kits--urging Americans to eat better. Among these was USDA's National Wartime Nutrition Guide, which became the "Basic Seven," followed in the 1950's by the "Basic Four" food group guide. The School Lunch Program was begun in 1946, offering increased opportunity for nutrition education in the schools.

During the 1950's and 1960's, there was growing concern with improving the effectiveness of nutrition education to help Americans improve their diets. A Federal Interagency Committee on Nutrition Education and School Lunch sponsored a series of conferences from 1957 to 1971 that focused on improving nutrition education and communication strategies. Participants at these conferences reiterated the importance of motivating the public to value the role of nutrition in promoting health and to improve their diets consistent with newer knowledge of nutrition.

The landmark 1969 White House Conference on Food, Nutrition, and Health highlighted the economic plight of low-income Americans that had resulted in an embarrassingly high incidence

Table 1.. Characteristics of an effective nutrition education program

A truly effective nutrition education program will--

- Reach the whole population--all groups, all races, both sexes, all creeds, all ages
- Recognize motives for action and include suggestions on what to do and how to do it
- Develop qualified leadership
- Drive home the same ideas many times and in many ways
- Employ every suitable education tool available
- Adapt those tools to the many and varied groups to be reached and use them with intelligence and skill
- Consider all phases of individual, family, and group situations that have a bearing upon ability to produce, buy, prepare, conserve, and consume food
- Afford opportunity for participation in making, putting into effect, and evaluating local nutrition programs
- Enlist the fullest participation of all citizens and work through every possible channel to reach the people
- Be adequately financed

Source: National Nutrition Conference for Defense, 1941

of hunger and malnutrition in a land of abundant food--where many in the population were suffering from chronic diseases related to overconsumption. The Conference called for greater efforts to support good nutrition for the low-income population, especially women, infants, and children, and for enhanced nutrition education to promote optimal health through food, and thus contribute to the individual's potential for achieving his life's goals. The objective for sound nutrition education was to enable each individual, throughout his life, to make wise decisions about his food choices.

In the 1970's, Federal agencies greatly increased nutrition support of low-income Americans by expanding and instituting food assistance programs, some of which had been initiated or piloted in the 1960's--the Food Stamp Program, the Commodity Supplemental Food Program (CSFP), and the Special Supplemental Food Program for Women, Infants, and Children (now the Special Supplemental Nutrition Program for Women, Infants, and Children)(WIC). The Cooperative Extension Service was authorized to provide intensive nutrition and food money-management education to hard-to-reach low-income families through the Expanded Food and Nutrition Education Program (EFNEP). Creation of other nutrition education programs was less rapid. Several reports, conferences, and congressional hearings in the late 1970's called for a greater role of the Federal Government in nutrition education for the public. They also emphasized the need for research to assess needs and to develop and evaluate techniques that can more effectively deliver nutrition information to the public and specific targeted audiences.

The Food and Agriculture Act of 1977 named USDA "lead" agency for nutrition research, extension, and teaching. Several related pieces of legislation provided specific authority for incorporating nutrition education into food assistance programs through efforts such as EFNEP, WIC, and NET, the nutrition education and training component of the Child Nutrition Programs. Begun in 1971 as a partnership between the Food and Nutrition Service (FNS) and the National Agricultural Library (NAL), the Food and Nutrition Information and Education Resources Center (FNIC) at NAL was officially authorized by the 1977 legislation to collect and lend a complete range of print, audiovisual, and other materials for nutritionists, food service workers, program leaders, and the public.

Growing scientific evidence for the relation of certain food components to risks for chronic disease and increasing public interest in diet and health issues led to the issuance in 1980 of the Dietary Guidelines for Americans by USDA and the Department of Health and Human Services (DHHS). The scientific consensus represented by these guidelines, reaffirmed by several major reviews in the 1980's and 1990's, has formed the policy basis for the development of nutrition information and educational materials for the public for the last 15 years. In the mid-1980's the Human Nutrition Information Service (HNIS) was assigned responsibility for ensuring that the Department "speak with one voice" on dietary guidance to the public; HNIS chaired the Dietary Guidance Working Group, an interagency committee that reviews all nutrition guidance materials developed by the Department for the public for consistency with the Dietary Guidelines for Americans. This ongoing committee, now chaired by the Center for Nutrition Policy and Promotion (CNPP), has facilitated interagency coordination and communication on nutrition education efforts for over a decade. A similar committee at DHHS reviews dietary guidance for the public. The two committees work jointly to conduct the review of Federal dietary guidance materials required by the National Nutrition Monitoring and Related Research Act of 1990.

During the 1980's, the Department placed increasing emphasis on nutrition monitoring and education research to develop improved materials and methods for informing the public about good nutrition. Substantial improvements were made in food consumption survey methodology, data on nutrient composition of foods, and coordination with major health and nutrition surveys by other Federal agencies. The Diet and Health Knowledge Survey, added in 1989, provides data on the relationship of consumers' nutrition knowledge and attitudes to their reported food consumption. The Economic Research Service increased efforts to assess potential influences of consumer food and health concerns and practices on the food supply, and conversely, the implications of changing food technologies for consumer choices. Analysis of determinants of consumer food choices helped educators to focus more effectively on nutrition messages that improve diet quality.

USDA-sponsored nutrition education research and evaluation studies, particularly the use of qualitative methods, contributed substantially to conceptual advancement in the profession of nutrition education as well as to improvements in USDA-developed nutrition materials. Some example efforts by HNIS during the 1980's were development and evaluation of the USDA-American Red Cross nutrition course for consumers *Better Eating for Better Health*; development and evaluation of the minibulletin series *Dietary Guidelines and Your Diet*; consumer evaluation of the 1985 Dietary Guidelines brochure; development of nutrition materials for low-literate audiences; development and evaluation of a computerized Dietary Analysis Program (DAP) for use by Extension agents with consumers; development and formative evaluation of nutrition

materials for healthy older adults (with the National Institute on Aging, DHHS); development and evaluation of Dietary Guidelines-based curriculum packages for secondary school home economics teachers and health education teachers; and development and implementation of a comprehensive, award-winning "Eating Right" campaign to promote the Dietary Guidelines for Americans and consumer materials to make use of these guidelines through press kits, media tours, and congressional and professional outreach efforts.

During the 1980's, nutrition education efforts for the food assistance programs focused on Dietary Guidelines-based messages, coupled with information on food money management and safe food handling. Research initiatives studied the use of television and related curricular materials to deliver nutrition messages to youth in schools and in EFNEP activities (e.g., "Food for Thought," "Mulligan Stew"); other projects sought cost-effective alternatives to intensive one-on-one delivery of nutrition education by paraprofessionals in EFNEP.

When the Dietary Guidelines were first issued in 1980, HNIS began research to develop a new food guidance system to help consumers apply the new guidelines to food choices. Unlike the Basic Four, which focused on nutrient adequacy, the new food guide focused on choosing foods for a total diet that not only provided adequate amounts of nutrients and fiber but that was moderate in calories, fats, added sugars, and sodium as well. Additional research to develop and test a graphic and consumer materials to present the new food guide resulted in the Food Guide Pyramid. This graphic has been widely adopted by government, industry, academic, and health professional groups as a tool for educating the public about current concepts of good nutrition.

The Dietary Guidelines for Americans and the food guidance system represented by the Food Guide Pyramid continue to serve as themes for the development and implementation of nutrition education in USDA food assistance and extension programs. Food program and Extension specialists at the Federal and State levels have adapted and expanded these themes to develop materials, media, training, and educational interventions that address the special needs of culturally diverse low-income program participants.

USDA has also worked in cooperation with the Food and Drug Administration (FDA) to improve nutrition labels. For many years, the Food Safety and Inspection Service (FSIS) encouraged manufacturers to voluntarily provide nutrition information on labels of meat and poultry products and since 1973 has required such information when nutrition-related claims are made. Although the Nutrition Labeling and Education Act (NLEA) of 1990 affected only foods regulated by FDA, FSIS worked closely with FDA to establish parallel regulations for labeling of meat and poultry products. Additionally, FSIS, HNIS, and FNIC/NAL worked with FDA in the National Exchange for Food Labeling Education (NEFLE) to develop educational materials and to provide information on how to use the new food label to select a healthy diet. In 1994, increased emphasis was placed on food safety and NEFLE activities were merged into the Nutrition and Food Safety Education Task Force.

In the 1990's the Department has renewed emphasis on developing comprehensive, coordinated efforts to deliver nutrition education to all the people--those served by food assistance programs and the general public. Additionally, the stated objectives of nutrition education have shifted from emphasis on providing nutrition information and skills to motivating actual behavioral change so that eating practices conducive to better health are adopted. Increased consumer

research is necessary to ensure that nutrition messages are meaningful and motivating to the targeted audience and can result in the desired behavioral change. In 1995, a review of research on delivery of nutrition education, commissioned by FCS, summarized published intervention studies with strong evaluation designs to identify elements that contribute to the effectiveness of nutrition education in promoting behavioral change. Many current USDA-sponsored nutrition education program activities are incorporating elements that were found effective in this review. The report has been widely disseminated, including publication in the *Journal of Nutrition Education*. Publication of this review should further strengthen nutrition education interventions in the future.

USDA has provided science-based nutrition information and education to the public for over 100 years. But nutrition science, the public, and the environment in which nutrition education is delivered are changing rapidly. As shown on the timeline in figure 1, USDA's nutrition education milestones are coming faster. Progress has been excellent on many of the essential features of an effective program listed in table 1, features that have been reaffirmed by the 1995 review of research. With established ties to cooperators at the community level through the NET, WIC, and Extension/EFNEP programs. USDA is positioned to cost-effectively catalyze "the fullest participation of all citizens" in planning, implementing, and evaluating local nutrition programs that can motivate improved food choices for better health.

As the environment in which nutrition education is delivered continues to rapidly change, the Department must actively plan for and implement change in its nutrition education messages and strategies. The identification and adoption of appropriate changes will help ensure USDA's continued leadership of Federal nutrition education into the 21st century.

Figure 1. Major Milestones in Nutrition Education at USDA

1860	`62	USDA formed
1870		
1880		
1890	`90	W.O. Atwater - human nutrition research
1900	`02	Atwater - Variety, Balance, and Moderation
1910		
	`14	Cooperative Extension Service
	`16	Caroline Hunt - First food guide
1920		
1930		
	`33	Food Plans at 4 Cost Levels
1940	`41	National Nutrition Conference for Defense
	`46	School Lunch Program began
1950		
	`56	Basic Four Food Guide
1960		
	`64	Food Stamp Program began
	`69	White House Conference on Food, Nutrition and Health
1970	`70	EFNEP began
	`71	FNIC formed at NAL
	`75	WIC began
	`77	Food and Agriculture Act of 1977, NET began; USDA named "lead" agency for nutrition research, extension, and teaching
1980	`80	Dietary Guidelines for Americans first issued
	`82	JSHNR defines "nutrition education research"
	`86	USDA Comprehensive Plan for HN Research and Education
1990	`90	National Nutrition Monitoring and Related Research Act
	`90	Nutrition Labeling and Education Act / NEFLE
	`92	Food Guide Pyramid
	`94	Nutrition and Food Safety Education Task Force
	`95	Dietary Guidelines for Americans, 4th edition
2000		

Appendix C

Legislative Authority for USDA Nutrition Education Efforts

The Department's legislative authority for nutrition education efforts derives primarily from the Organic Act of 1862, the Smith-Lever Act of 1914, the Food and Agriculture Act of 1977, and the National Nutrition Monitoring and Related Research (NNMRR) Act of 1990. A set of specific program enactments or amendments in the late 1970's provided authority for nutrition education in the food assistance programs. Since the 1970's several major pieces of legislation have amended these programs to add authorization for specific projects and interagency efforts directed to low-income audiences or children. Relevant sections of these laws are summarized in chronological order at the end of this synopsis.

Broad authority for nutrition education

The **Organic Act of 1862** established the Department of Agriculture and called for the Department "to acquire and diffuse among the people of the United States useful information on subjects connected to agriculture and rural development." A 1977 amendment added "aquaculture and human nutrition" to the subjects specified.

The **Smith-Lever Act of 1914** created the Cooperative Extension Service, a partnership between the USDA, the State land-grant universities, and county governments, to serve as the vehicle for providing educational information to people in their local environments, particularly in rural America. The objective was to provide people with "useful and practical information on subjects relating to agriculture and home economics...." A 1953 amendment specified nutrition as one of these subjects. The Smith-Lever Act also provided for "boys' and girls' club work" as part of the national education program of the Cooperative Extension Service. These clubs became the "4-H" program.

The **National Agricultural Research, Extension, and Teaching Policy Act of 1977** (Title XIV of Public Law 95-113, the "Food and Agriculture Act of 1977"), established USDA as the **lead agency** in the Federal Government for the food and agricultural sciences (including human nutrition), to assure that the results of agricultural research are effectively communicated to...consumers and all users who can benefit therefrom. Subtitle D of this law states that Congress finds that there is increasing evidence of a relationship between diet and many of the leading causes of death in the United States, that nutrition and health considerations are important to U.S. agricultural policy and that there is a critical need for objective data and a means to encourage better nutritional practices. It was declared policy that the Secretary of Agriculture conduct research in the fields of human nutrition and the nutritive value of foods and conduct human nutrition education activities. To carry out subtitle D, section 1422 authorized the Secretary to develop and implement a national food and human nutrition research and extension program that was to include, but not be limited to, research on the factors affecting food preference and habits, and the development of techniques and equip-

ment to assist consumers in the home or in institutions in selecting food that supplied a nutritionally adequate diet. Section 1425 further directed the Secretary to establish a national education program to include, but not be limited to, dissemination of results of food and human nutrition research performed or funded by the Department. (Although 1425(b) expanded efforts for low-income individuals, it provided that the Secretary shall not be precluded from developing educational materials and programs for persons in income ranges above the level designated in this subsection.)

The **National Nutrition Monitoring and Related Research Act of 1990** (Public Law 101-445) Title III directs the Secretary of Health and Human Services and the Secretary of Agriculture to jointly issue at least every 5 years a report entitled *Dietary Guidelines for Americans*, containing guidance for the general public based on the preponderance of scientific and medical knowledge current at the time of publication. The Guidelines are to be promoted by each Federal agency in carrying out any Federal food, nutrition, or health program. The legislation also authorized joint agency review of all Federal nutrition education materials for the public produced by the Departments to assure their consistency with the Dietary Guidelines. Titles I and II of P.L. 101-445 provided for improved coordination, collection, and reporting of food and nutrition monitoring information, which is essential for determining nutrition policy and developing nutrition messages for the public.

Another major legislative act affecting Federal nutrition education is the Nutrition Labeling and Education Act (NLEA) of 1990. This act required FDA to develop regulations for nutrition labeling of foods and conduct an educational program to help consumers use the label information. Although the legislation affects only foods regulated by FDA, USDA's Food Safety and Inspection Service worked closely with FDA to establish parallel regulations for labeling of meat and poultry products. FSIS, HNIS, and FNIC/NAL also worked with FDA and the National Exchange for Food Labeling Education (NEFLE) to develop educational materials on how to use the new food label to select a healthful diet.

Authority for specific programs

Although many food assistance programs had their beginnings in the 1960's or earlier, nutrition education in these programs was not specified by legislation until the mid-1970's. Later legislation amended these programs to authorize projects and interagency efforts for specific audiences. This later legislation reflects increased Congressional interest in nutrition education for food program participants, especially low-income women and children, and culturally diverse subpopulations; in interagency cooperation in delivery of programs; in building and evaluating community-based programs; and in sharing results through diffusion of model programs.

◆ The Expanded Food and Nutrition Education Program (EFNEP)

EFNEP was initially funded in November 1968 (Sec. 32 of an Act to Amend the Agricultural Adjustment Act of 1935) "to help low-income families, especially those

with young children, to acquire the knowledge, skills, attitudes, and changed behavior necessary to improve their diets in normal nutrition." In 1970 (P.L. 91-127), 4-H age youth were included, and EFNEP was funded under the Smith-Lever Act 3(d).

In the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (Section 1425(b) P.L. 95-113), EFNEP was expanded to provide for employment and training of professional and paraprofessional aides to engage in direct nutrition education of low-income families. Program aides were to be hired from the indigenous target population.

Two later laws increased the role of the Cooperative Extension Service in providing nutrition education for food program participants. The Food Security Act of 1985 (Public Law 99-198) under Title XV, Sec. 1530, amended the Food Stamp Act of 1977 to add that "State agencies shall encourage food stamp program participants to participate in the expanded food and nutrition education program." In sections 1584-1588, Congress authorized the Cooperative Extension Service to expand their nutrition education efforts for low-income individuals through EFNEP and other food, nutrition, and consumer education activities of the CES or those carried out in collaboration with other agencies or organizations. The CES was to help food stamp participants increase their ability to manage their food budgets; buy food that satisfies nutritional needs and promotes health; and improve their food preparation, storage, safety, preservation, and sanitation practices.

The Food, Agriculture, Conservation, and Trade Act of 1990 (Public Law 101-624) in Sec. 1739 amended the Food Stamp Act of 1977 to authorize the Secretary to assign responsibility for the nutrition education of individuals eligible for food stamps or the commodity distribution program to the Cooperative Extension Service, in cooperation with the Food and Nutrition Service. Sec. 1761 authorized the Secretary to make 2-year competitive grants to enhance interagency cooperation in nutrition education and to develop cost effective ways to inform people eligible for food stamps about nutrition, resource management, and community nutrition education programs such as EFNEP. The Secretary was to make awards to State cooperative extension services, who would administer the grants in coordination with other State or local agencies serving low-income people. Each project was to include an evaluation component and an implementation plan for replication; results were to be disseminated through the CES and State human services programs.

◆ The Food Stamp Program

The largest of the food assistance programs, the Food Stamp program was authorized by the Food Stamp Act of 1964 (Public Law 88-525) "to permit those households with low incomes to receive a greater share of the Nation's food abundance."

The Food Stamp Act of 1977 (Title XIII of the Food and Agriculture Act of 1977 (Public Law 95-113)) called for "a food stamp program which will permit low-income households to obtain a more nutritious diet through normal channels of trade by increasing food purchasing power for all eligible households." Although the Food Stamp program did not have its own mandated nutrition education component, Sec.4(f) directed the Secretary "to extend EFNEP to the greatest extent possible to reach food stamp program participants," and directed that "the program be further supplemented by the development of single concept printed materials, specifically designed for persons with low reading and comprehension levels, on how to buy and prepare more nutritious and economical meals and on the relationship between food and good health."

Later legislation, cited above, authorized increased nutrition education efforts by EFNEP and other CES programs for low-income individuals participating or eligible for food stamps.

◆ Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)

The Special Supplemental Food Program for Women, Infants, and Children was authorized as a 2-year pilot project in 1972, by Public Law 92-433 as Sec. 17 of the Child Nutrition Act of 1966, to serve low-income pregnant and post-partum women, infants, and children who were at risk due to poor nutrition. Federal funds were to be distributed to State health departments for allocation to local agencies operating WIC programs. Nutrition education was not specified as a component in this initial legislation.

WIC was officially established as a national health and nutrition program by Public Law 93-150 in 1975. At this time the administrative spending cap was increased to 20-percent, and nutrition education was allowed as an "administrative expense."

In the Child Nutrition Amendments of 1978 (Public Law 95-627), Section 17 of the Child Nutrition Act of 1966 was amended to require the WIC program to provide both supplemental foods and nutrition education. No less than 1/6 of available administrative funds were to be devoted to nutrition education. Nutrition education was defined as "individual or group sessions and the provision of materials designed to improve health status that achieve positive change in dietary habits, and emphasize relationships between nutrition and health, all in keeping with the individual's personal, cultural, and socioeconomic preferences." Sec.17(e) required the State agency to ensure that nutrition education is provided to all pregnant, postpartum, and breastfeeding participants in the program and to parents or caretakers of infant and child participants. The nutrition education was to be evaluated annually, and evaluation was to include the views of participants. Further, each State was to submit a plan indicating nutrition education goals and action plans, including a description of the methods that would be used to meet the special nutrition education needs of migrants and Indians.

In 1988, drug abuse information and referrals were added as allowable nutrition education expenditures. In 1989, enhanced breastfeeding promotion and support activities were mandated. The Healthy Meals for Healthy Americans Act of 1994 (Public Law 103-448, Sec. 204) authorized spending equal to \$21 per pregnant or breastfeeding participant on breastfeeding promotion and support. The WIC Farmers' Market Nutrition Program initiated in 1992 (P.L. 102-314) was also expanded by this legislation to encourage greater access to nutritious fresh fruits and vegetables for program participants. P.L. 103-448 also changed the name of the program to the Special Supplemental Nutrition Program for Women, Infants, and Children.

◆ Nutrition Education and Training Program (NET)

Public Law 95-166, the National School Lunch Act and Child Nutrition Amendments of 1977, Sec. 15, amended the Child Nutrition Act of 1966 to add Section 19: Nutrition Education and Training. Its stated purpose (b) was "to encourage effective dissemination of scientifically valid information to children participating or eligible to participate in the school lunch and related child nutrition programs by establishing a system of grants to State educational agencies for the development of comprehensive nutrition information and education programs. Such nutrition education programs shall fully use as a learning laboratory the school lunch and child nutrition programs."

In Sec. 19(c), Nutrition information and education program was defined as "a multidisciplinary program by which scientifically valid information about foods and nutrients is imparted in a manner that individuals receiving such information will understand the principles of nutrition and seek to maximize their well-being through food consumption practices. Nutrition education programs shall include, but not be limited to, (A) instructing students with regard to the nutritional value of foods and the relationship between food and human health; (B) training school food service personnel in the principles and practices of food service management; (C) instructing teachers in sound principles of nutrition education; and (D) developing and using classroom materials and curricula."

Public Law 103-448, the Healthy Meals for Healthy Americans Act of 1994, Title II, Sec. 205, amended section 19 of the Child Nutrition Act of 1966 to broaden responsibilities of the NET program. The name of the program was changed to drop "information" and focus on "education and training." The target audience was broadened to include nutrition education and training for parents and caregivers, child care and summer food service personnel as well as students, teachers, and school food service workers. Use of funds (Section 19(f)) was expanded to authorize funding for new activities, including providing nutrition education in "language appropriate materials" to children and families through after-school programs.

Title I, Amendments to the National School Lunch Act, Sec. 110 specified that nutrition education and training program resources may be used to provide training aimed at improving the quality and acceptance of school meals. Other sections outlined specific projects to improve school nutrition curricula and school meals: Sec. 113 authorized the Secretary to award grants to private nonprofit organizations or educational institutions "to create, operate, and demonstrate food and nutrition projects that are fully integrated with elementary school curricula," especially in math, science, and verbal skills. Sec. 118 authorized pilot projects to increase choices of fruits, vegetables, legumes, cereals, grain-based products, lowfat dairy products, and lean meat and poultry products in school meals. These projects were to be assessed for their impact on school children's food consumption and on costs to schools.

**Summaries of Selected Legislation Authorizing
USDA Nutrition Education Activities**

1. Public Law 88-525, August 31, 1964
Food Stamp Act of 1964
2. Public Law 95-113, September 29, 1977
Food and Agriculture Act of 1977
3. Public Law 95-166, November 10, 1977
National School Lunch Act and Child Nutrition Amendments of 1977
4. Public Law 95-627, November 10, 1978
Child Nutrition Amendments of 1978
5. Public Law 99-198, December 23, 1985
Food Security Act of 1985
6. Public Law 101-445, October 22, 1990
National Nutrition Monitoring and Related Research Act of 1990
7. Public Law 101-624, November 28, 1990
Food, Agriculture, Conservation, and Trade Act of 1990
8. Public Law 102-314, July 2, 1992
WIC Farmers' Market Nutrition Act of 1992
9. Public Law 103-448, November 2, 1994
Healthy Meals for Healthy Americans Act of 1994

Public Law 88-525 August 31, 1964

"Food Stamp Act of 1964"

Sec. 2 Declaration of policy

"It is hereby declared to be the policy of Congress, in order to promote the general welfare, that the Nation's abundance of food should be utilized cooperatively by the States, the Federal Government, and local governmental units to the maximum extent practicable to safeguard the health and well-being of the Nation's population and raise levels of nutrition among low-income households. The Congress hereby finds that increased utilization of foods in establishing and maintaining adequate national levels of nutrition will tend to cause the distribution in a beneficial manner of our agricultural abundances and will strengthen our agricultural economy, as well as result in more orderly marketing and distribution of food. ...a food stamp program which will permit those households with low incomes to receive a greater share of the Nation's food abundance, is herein authorized."

Sec. 4(a) The Secretary is authorized to formulate and administer a food stamp program...

Sec. 16(a) Authorized appropriations

FYE 6/30/65: \$75,000,000

FYE 6/30/66: \$100,000,000

FYE 6/30/67: \$200,000,000

Public Law 95-113 September 29, 1977

"Food and Agriculture Act of 1977"

Title XIII - Food Stamp and Commodity Distribution Programs

Sec. 1301 "Food Stamp Act of 1977"

Sec. 2 It is hereby declared to be the policy of Congress, in order to promote the general welfare, to safeguard the health and well-being of the Nation's population by raising levels of nutrition among low-income households. ...a food stamp program is herein authorized which will permit low-income households to obtain a more nutritious diet through normal channels of trade by increasing food purchasing power for all eligible households who apply for participation.

Sec. 4(f) (7 USC 2013) To encourage the purchase of nutritious foods, the Secretary shall extend the expanded food and nutrition education program to the greatest extent possible to reach food stamp program participants. The program shall be further supplemented by the development of single concept printed materials, specifically designed for persons with low reading and comprehension levels, on how to buy and prepare more nutritious and economical meals and on the relationship between food and good health.

Title XIV - National Agricultural Research, Extension, and Teaching Policy Act of 1977

Sec. 1402 Congress finds that--

- (1) Federal Government has provided funding...for extension to promote and protect the general health and welfare of the people of the US...[but]
- (3)...useful information produced through such federally supported research is not being efficiently transferred to the people of the US.
- (8)...new Federal initiatives are needed in the areas of
 - (B) research and extension on human nutrition and food consumption patterns
 - (F) ...improving and expanding the research and extension programs in home economics

Sec. 1403 (7 USC 3102) Purposes...

- (1) establish firmly the Department of Agriculture as the lead agency in the Federal Government for the food and agricultural sciences, and to emphasize that agricultural research, extension, and teaching are distinct missions of the Department of Agriculture;
- (2)...assure that the results of agricultural research are effectively communicated and demonstrated to farmers, processors, handlers, **consumers**, and all other users who can benefit therefrom;

Sec. 1404 Definitions

- (5) "cooperative extension services" means organizations established at the land-grant colleges and universities under the Smith-Lever Act of May 8, 1914

(7) "extension" means the informal education programs conducted in the States in cooperation with the Department of Agriculture

(8) "food and agricultural sciences" include

(E) home economics, human nutrition, and family life

Sec. 1405 The Department of Agriculture is designated as the lead agency of the Federal Government for agricultural research (except with respect to the biomedical aspects of human nutrition concerned with diagnosis or treatment of disease), extension, teaching in the food and agricultural sciences.

Sec. 1411(b) Food and Nutrition Information and Education Resources Center establishment

There is hereby established within the National Agricultural Library of the Department of Agriculture a Food and Nutrition Information and Education Resources Center. Such Center shall be responsible for--

(1) assembling and collecting food and nutrition education materials, including the results of nutrition research, training methods, procedures, and other materials related to the purpose of this title;

(2) maintaining such information and materials in a library; and

(3) providing for the dissemination of such information and materials on a regular basis to State educational and other interested persons.

Sec. 1422 (7 USC 3172) Duties of the Secretary of Agriculture

The Secretary shall develop and implement a national food and human nutrition research and extension program that shall include, but not be limited to--

(4) research on the factors affecting food preference and habits, and

(5) the development of techniques and equipment to assist consumers in the home or in institutions in selecting food that supplies a nutritionally adequate diet.

Sec. 1425 (7 USC 3175) Nutrition Education Program

(a) Secretary shall establish a national education program which shall include, but not be limited to, the dissemination of the results of food and human nutrition research performed or funded by the Department of Agriculture.

(b) In order to enable low-income individuals and families to engage in nutritionally sound food purchasing and preparation practices, the expanded food and nutrition education program presently conducted under section 3(d) of the Act of May 8, 1914 (7 USC 343(d)) shall be expanded to provide for the employment and training of professional and paraprofessional aides to engage in direct nutrition education of low-income families...Funds in proportion to population of State living at or below 125% of income poverty guidelines...program aides shall be hired from the indigenous target population. ...shall not preclude the Secretary from

developing educational materials and programs for persons in income ranges above the level designated in this subsection.

Sec. 1426 (7 USC 3176) Secretary in consultation with DHEW shall develop and distribute to State departments of education a comprehensive set of educational materials on food and nutrition education which shall be appropriate for all levels of the elementary and secondary education system.

Sec. 1427 (7 USC 3177) Secretary shall submit a comprehensive plan for implementing the national food and human nutrition research and extension program.

Title XVII - Wheat and Wheat Foods Research and Nutrition Education Act (7 USC 3401)

Sec. 1702 Findings/declaration of policy

(a) Wheat basic to American diet

(c)...A programmed effort of research and nutrition education is of great importance...

(d) [purpose] to authorize and enable the creation of an orderly procedure, adequately financed through an assessment, for the development and initiation of an effective and continuous coordinated program of research and nutrition education, designed to improve and enhance the quality and make the most efficient use of American wheat and wheat foods to ensure an adequate diet....

Sec. 1703 Definitions

(h) "nutrition education" means any action to disseminate to the public **information resulting from research** concerning the economic value or nutritional benefits of wheat, processed wheat, and end products.

"National School Lunch Act and Child Nutrition Amendments of 1977"

Sec. 2 Section 13 of the NSLA amended to authorize the Summer Food Service Program for Children.

Sec. 20(a) Pilot Projects (42 USC 1769) include projects using the USDA Extension Service to aid in nutrition training and education in schools and other institutions.

Sec. 15 Amends the Child Nutrition Act of 1966 to add Sec. 19 (42 USC 1788) Nutrition Education and Training--

(a) Congress finds that--

"...(5) there is a need to create opportunities for children to learn about the importance of the principles of good nutrition in their daily lives and how these principles are applied in the school cafeteria."

Purpose:

(b) It is the purpose of this section to encourage effective dissemination of scientifically valid information to children participating or eligible to participate in the school lunch and related child nutrition programs by establishing a system of grants to State educational agencies for the development of comprehensive nutrition information and education programs. Such nutrition education programs shall fully use as a learning laboratory the school lunch and child nutrition programs."

(c)..."Nutrition information and education program" means a multidisciplinary program by which scientifically valid information about foods and nutrients is imparted in a manner that individuals receiving such information will understand the principles of nutrition and seek to maximize their well-being through food consumption practices. Nutrition education programs shall include, but not be limited to, (A) instructing students with regard to the nutritional value of foods and the relationship between food and human health; (B) training school food service personnel in the principles and practices of food service management; (C) instructing teachers in sound principles of nutrition education; and (D) developing and using classroom materials and curricula.

(d)...carry out through a system of grants to State educational agencies...

...coordinated at the State level with other nutrition activities conducted by education, health, and State Cooperative Extension Service agencies.

(h)...State shall appoint a nutrition education specialist to serve as a State coordinator for school nutrition education...responsible for an assessment of nutrition education needs in the State and developing a State plan.

(j)...funding at 50 cents per child enrolled, not less than \$75,000 per State.

Recent authorized appropriations

FY 1990: \$10M

FY 1991: \$15M

FY 1992: \$20M

FY 1993: \$25M

FY 1994: \$25M

If amount actually appropriated is lower, amount of each grant shall be ratably reduced.

"Child Nutrition Amendments of 1978"

Sec. 2 amends Section 17 of the National School Lunch Act to establish the Child Care Food Program.

Sec. 3 amends Section 17 of the Child Nutrition Act of 1966 to

(a) include nutrition education as well as supplemental foods in the "Special Supplemental Food Program" for Women, Infants, and Children.

(b)(1) Administrative costs defined to include "nutrition education."

(7) "'Nutrition education' means individual or group sessions and the provision of materials designed to improve health status that achieve positive change in dietary habits, and emphasize relationships between nutrition and health, all in keeping with the individual's personal, cultural, and socioeconomic preferences."

(e)(1) The State agency shall ensure that nutrition education is provided to all pregnant, postpartum, and breastfeeding participants in the program and to parents or caretakers of infant and child participants in the program...The Secretary shall prescribe standards to ensure that adequate nutrition education services are provided...Nutrition education shall be evaluated annually by each State agency, and such evaluation shall include the views of participants concerning the effectiveness of the nutrition education they have received.

(f)(1) Each State agency shall submit annually to the Secretary..

(F) Nutrition education goals and action plans, including a description of the methods that will be used to meet the special nutrition education needs of migrants and Indians.

"Food Security Act of 1985"

Title XV - Food Stamp and Related Provisions

Sec. 1530 Expanded food and nutrition education program

Section 11(f) of the Food Stamp Act of 1977 (7 USC 2020(f)) is amended by adding

"State agencies shall encourage food stamp program participants to participate in the expanded food and nutrition education program conducted under section 3(d) of the Act of May 8, 1914...and any program established under sections 1584-1588 of the Food Security Act of 1985. At the request of personnel of such education program, State agencies, wherever practicable, shall allow personnel and information materials of such education program to be placed in food stamp offices."

Sec. 1584 (7 USC 3175a) Congress finds that individuals in households eligible...for food stamps and other low-income individuals...including rural...should have greater access to nutrition and consumer education to enable them to use their food budgets, including food assistance, effectively and to select and prepare foods that satisfy their nutritional needs and improve their diets.

Sec. 1585 (7 USC 3175b) Purpose of program under sec 1584-1588 is to expand effective food, nutrition, and consumer education services to the greatest practicable number of low-income individuals...to assist them to--

- (1) increase their ability to manage their food budgets, including food stamps and other food assistance;
- (2) increase their ability to buy food that satisfies nutritional needs and promotes good health; and
- (3) improve their food preparation, storage, safety, preservation, and sanitation practices.

Sec. 1586 (7 USC 3175c) The cooperative extension services of the States shall carry out an expanded program of food, nutrition, and consumer education for low-income individuals in a manner designed to achieve the purpose set forth in section 1585. ...CES may use the expanded food and nutrition education program, and other food, nutrition, and consumer education activities of the CES or similar activities carried by them in collaboration with other public or private nonprofit agencies or organizations. CES are encouraged to--

- (1) provide effective and meaningful food, nutrition, and consumer education services to as many low-income individuals as possible;
- (2) employ educational methodologies, including innovative approaches, that accomplish the purpose set forth in section 1585; and
- (3) to the extent practicable, coordinate activities...with delivery to low-income individuals of benefits under food assistance programs.

Sec. 1587 (7 USC 3175d) Administration by Secretary of Agriculture through the Extension Service, in consultation with FNS and HNIS.

Sec. 1588 (7 USC 3175e) Authorized appropriations

FY86: \$5M

FY87: \$6M

FY88, 89, 90: \$8M

These funds shall supplement other funds appropriated for CES for nutrition education of low income households.

Public Law 101-445 October 22, 1990

"National Nutrition Monitoring and Related Research Act of 1990"

Title I - Nutrition Monitoring and Related Research

Sec. 101 Establishment of the coordinated program

Provides for establishment of an Interagency Board for Nutrition Monitoring and Related Research, jointly chaired by assistant Secretaries in USDA and DHHS.

Sec. 102 Functions of the Secretaries

- (a) Update Joint Implementation Plan, ensure timely implementation of the coordinated program and plan prepared under section 103; contract with a scientific body, such as FASEB or NAS to interpret available data analyses and publish every two years a report on the dietary, nutrition, and health-related status of the people of the US.
- (b) Submit to President and Congress, a biennial report presenting results and policy implications of findings.

Sec. 103 Development of the Comprehensive Plan for the National Nutrition Monitoring and Related Research Program

Emphasis on status and trends in women, elderly, low-income populations, blacks, Hispanics, and other groups.

Specifies components of the plan.

Sec. 104 Implementation of the comprehensive plan

Sec. 105 Scientific research and development in support of the coordinated program and comprehensive plan

Sec. 106 Annual budget submission

Title II - National Nutrition Monitoring Advisory Council

Specifies structure, composition, and functions of the council.

Title III - Dietary Guidance

Sec. 301 Establishment of Dietary Guidelines

(a) Report

- (1) In general, at least every five years the Secretaries shall publish a report entitled "Dietary Guidelines for Americans," containing information and guidelines for the general public, and shall be promoted by each Federal agency in carrying out any Federal food, nutrition, or health program.
- (2) Basis of guidelines - The information and guidelines contained in each report required...shall be based on the preponderance of the scientific and medical knowledge which is current at the time the report is prepared.

(b) Approval by Secretaries

- (1) Review - Any Federal agency that proposes to issue any dietary guidance for the general population or identified population subgroups shall submit the text of such guidance to the Secretaries for a sixty-day review period.
- (2) Basis of review - "to assure that guidance is consistent with the Dietary Guidelines for Americans or that the guidance is based on medical or new scientific knowledge which is determined to be valid by the Secretaries."
- (3) Limitation on definition of guidance - does not include any rule or regulation issued by a Federal agency.
- (4) Population subgroups include but not limited to groups based on factors such as age, sex, or race.

- (c) Existing authority not affected** - does not place any limitations on conduct of research, presentation of research findings, authority of the Food and Drug Administration under the Federal Food, Drug, and Cosmetic Act (21 USC 321 et seq.)

Sec. 302 Nutrition Training Report

Provides for a report describing the appropriate Federal role in assuring that students enrolled in medical schools and physicians practicing in US have access to adequate training in the field of nutrition and its relationship to human health.

Pursuant to *Sec. 301(b)*:

USDA and DHHS Memorandum of Understanding for General Procedures for Review of Dietary Guidance - March 30, 1994

Public Law 101-624 November 28, 1990

"Food, Agriculture, Conservation, and Trade Act of 1990"

...to ensure consumers of an abundance of food and fiber at reasonable prices...

Title XVI - Research

Sec. 1679 Pilot project to coordinate food and nutrition education programs

Title XVII - Food Stamp and Related Provisions (Amendments to Food Stamp Act of 1977 (7 USC 2011 et seq.))

Subtitle A. Food Stamp Program

Sec. 1739 Nutrition Education

Section 11(f) 7 USC 2020(f) is amended--adds: "To encourage the purchase, preparation, and consumption of nutritious foods, the Secretary is authorized to assign responsibility for the nutrition education of individuals eligible for food stamps, or the program for the distribution of commodities on reservations, to the Cooperative Extension Service, in cooperation with the Food and Nutrition Service."

Sec. 1761 Nutrition Education Improvements adds:

3(A) Of the amounts made available...not more than \$2,000,000 in any fiscal year may be used by the Secretary to make 2-year competitive grants that will--

(i) enhance interagency cooperation in nutrition education activities

(ii) develop cost effective ways to inform people eligible for food stamps about nutrition, resource management, and community nutrition education programs, such as the expanded food and nutrition education program.

(B) The Secretary shall make awards...to one or more State cooperative extension services who shall administer the grants in coordination with other State or local agencies serving low-income people.

(C) Each project shall include an evaluation component...and implementation plan for replication.

(D) The Secretary shall report to committees of Congress on results and disseminate results through the cooperative extension service system and to State human services etc.

Subtitle B. Commodity Distribution Programs

Sec. 1776 Nutrition Education Reauthorization

(a) Nutrition education program in Section 1588(a) of the Food Security Act of 1985 (7 USC 3175e(a)) amended to \$8,000,000 for each fiscal year 1991-95.

(b) Expanded Food and Nutrition Education Program (Section 1425(c) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 USC 3125(c)) is amended to authorize up to \$83,000,000 for fiscal year 1995 (\$63M for 1991).

Public Law 102-314 July 2, 1992

"WIC Farmers' Market Nutrition Act of 1992"

Purpose: Authorize grants to State programs designed to provide resources to women, infants, and children who are nutritionally at risk in the form of fresh nutritious unprepared foods (such as fruits and vegetables), from farmers markets; and expand the awareness and use of farmers' markets and increase sales at such markets.

State must contribute 30 percent of total cost; administration not cost more than 15% of total.

(5) Federal share of benefits by any recipient = \$10 to 20 per year.

(8) For each fiscal year, Secretary shall collect from each State information relating to number and type of recipients served, rate of redemption of coupons, average amount in coupons to each recipient, impact on the nutritional status of recipients by determining the change in consumption of fresh fruits and vegetables by recipients. effects on use of farmers' markets.

"Healthy Meals for Healthy Americans Act of 1994"

Sense of Congress: As a part of efforts to continue to serve nutritious meals to youths in the United States and to educate the general public regarding health and nutrition issues, the Secretary of Agriculture should take actions to coordinate the nutrition education efforts of all nutrition programs.

Title I - Amendments to National School Lunch Act

Sec. 110 Use of nutrition education and training program resources

Amends Section 9 of the National School Lunch Act to add

"(h) In carrying out this Act and the Child Nutrition Act of 1966, a State education agency may use resources provided through the nutrition education and training program authorized under section 19 of the Child Nutrition Act of 1966 (42 USC 1788) for training aimed at improving the quality and acceptance of school meals."

Sec. 113 Food and nutrition projects

Amends section 12 of the National School Lunch Act to add

"(m)(l) The Secretary, acting through the Administrator of the Food and Nutrition Service or through the Extension Service, shall award on an annual basis grants to a private nonprofit organization or educational institution in each of 3 States to create, operate, and demonstrate food and nutrition projects that are fully integrated with elementary school curricula."

(2)(A) assist local schools and educators in offering food and nutrition education that integrates math, science, and verbal skills in the elementary grades.

(3) Subject to availability of appropriations...grants to each of 3 private organizations selected of \$100,000-\$200,000 for each of fiscal years 1995 through 1998.

Sec. 118 Pilot projects

(d) Increased choices of fruits, vegetables, legumes, cereals, and grain-based products

(4) report to congress on impact of pilot project on participating schools -- extent to which consumption increased and fat intake decreased; views of school food service on pilot project, effect on costs to schools.

(e) Increased choices of lowfat dairy products and lean meat and poultry products.

(4) report to congress as above

Title II - Amendments to Child Nutrition Act of 1966

Sec. 201 School Breakfast Program

(c) Promotion of program to increase participation, improve public education and outreach efforts in language appropriate materials (using a language other than the English language in a case in which the language is dominant for a large percentage of individuals participating in the program).

Sec. 204 WIC

(i) Coordination initiative for WIC and Medicaid programs (cross referral and provision of medical information)

(j) Extension of program (Section 17 (42 USC 1786)) through 1998.

(l) Breastfeeding promotion and support activities, equal to \$21 (adjusted for inflation) per pregnant or breastfeeding women participating.

(u) Initiative to provide program services at community and migrant health centers (both supplemental foods and nutrition education in WIC, and health care services)

(v) Expansion of Farmers' Market Nutrition Program (also reduces data collection requirements of states to information "if available")

(w) Change in name of program to "Special Supplemental Nutrition Program for Women, Infants, and Children"

Sec. 205 Nutrition Education and Training Program

(a) Name of program changed to drop "information" and insert "education and training."

(b) Nutrition education programs adds "(3)(E) providing information to parents and caregivers regarding the nutritional value of food and the relationship between food and health."

(c) Nutrition education and training amended to include efforts for parents/caregivers, child care, and summer food service personnel.

(d) Use of funds (Section 19(f)(1)) amended to include

(ix) funding for a nutrition component that can be offered in consumer and homemaking education programs as well as in health education curriculum offered to children in kindergarten through grade 12.

(x) instructing teachers...to promote better nutritional health, and to motivate children from a variety of linguistic and cultural backgrounds to practice sound eating habits.

(xi) nutrition education in language appropriate materials to children and families through after school programs.

(xii) training in relation to healthy meals.

(xiii) creating instructional programming for teachers, food service and parents on relationships between nutrition and health and role of the Food Guide Pyramid.

(xvii) contracting with public and private nonprofit educational institutions for the conduct of nutrition education instruction and programs relating to purpose of this section.

(xviii) increasing public awareness of the importance of breakfasts for children.

(xix) coordinating and promoting nutrition education and training activities carried out under child nutrition programs (SFS, NSL, CACF).

Appendix D

Funding for USDA Nutrition Education Activities

A review of funding information on human nutrition research and education activities in FY95 highlights the following points, illustrated in the accompanying charts and graphics:

- ◆ Expenditures for human nutrition research and education represent only a small fraction of the estimated \$31.2B spent in FY95 on the major food assistance programs, Food Stamps (\$27.7B) and WIC (\$3.5B).
- ◆ Of the total funding of \$400.3M for human nutrition research and education activities in FY95, nutrition education activities account for 81 percent; basic research on human nutrient requirements and food composition, 14 percent; and monitoring of food consumption and use of foods, 5 percent.
- ◆ Breaking down the nutrition education expenditures (\$325.6M) by target audience shows that 83 percent go to activities specifically directed to low-income audiences: 56 percent to WIC and 27 percent to EFNEP and Food Stamp Program (FSP)-related education activities. Activities directed to children (not restricted to low-income children) under the Child Nutrition Programs (CNP) and NET account for 12 percent of estimated expenditures, and activities targeted to the "general public" (funding for CNPP, FSIS, FNIC, and Federal funding for Cooperative Extension System (CES) base program activities) receive just over 5 percent.
- ◆ Of the three programs with legislated nutrition education missions, WIC (including WIC breastfeeding promotion and evaluation activities) accounted for 56 percent of expenditures; EFNEP, 20 percent; and NET just 3 percent.
- ◆ Looking at nutrition education as a percentage of food program funding shows that WIC nutrition education, including breastfeeding promotion, accounted for just over 5 percent of total WIC program funding.

The Food Stamp Program has no legislated requirement to provide nutrition education. However, legislation has urged the Secretary to use the Extension Service's EFNEP in outreach and provision of nutrition education to FSP recipients. There has also recently been a marked increase in use of Food Stamp administrative funds for nutrition education of participants under the 50:50 Federal/state matching program. Nevertheless, combined funding for EFNEP and FSP-related nutrition education initiatives represented only 0.3 percent of total Food Stamp Program funding in FY95.

- ◆ Trends in funding for EFNEP, NET, and WIC nutrition education since program inception show that funding is undependable, and that inflation has eroded the purchasing power of those funds appropriated.
 - Begun with approximately \$50M in 1970, EFNEP funding has remained essentially static in actual dollars, but has seen tremendous decreases in buying power of those dollars during its 25-year history.
 - The NET program, begun in 1978 at a funding level of about \$26M (\$0.50 per child), sustained great cuts in actual funding during the 1980's, with only partial restoration in the 1990's. However, inflation since 1978 has halved the purchasing power of those dollars.
 - While actual nutrition education expenditures in WIC grew steadily during the 1980's as total WIC program funding increased, the buying power of those funds rose much less rapidly. Effects of inflation have been moderated somewhat because since 1989, WIC administrative funding (including nutrition education) has increased due to inflation adjustments, tied to the inflation rate for State and local government purchases.
- ◆ Constraints of static funding and inflation may present substantial barriers when programs are asked to incorporate evaluation activities, formative consumer research, and innovative delivery technologies--and at the same time maintain program delivery at acceptable levels.

Notes to Illustrations of Nutrition Education Expenditures

Pie Charts:

Data on 1995 Human Nutrition Research and Education expenditures were obtained from the Office of Budget and Program Analysis (OBPA); these are the same data included in the 1995 Report to Congress.

- ◆ Expenditures for WIC include the amounts allocated for breastfeeding promotion (BF) and a small amount for evaluation activities conducted by FCS's Office of Analysis and Evaluation.
- ◆ Expenditures for EFNEP include those for the ES/WIC initiative.
- ◆ Expenditures for Cooperative Extension Service base programs targeted to the general public are based on formula estimates, as in the 1995 Report to Congress.
- ◆ Expenditures identified for Food Stamps include use of FSP administrative funds for State Matching Grants, selected smaller evaluation projects, and \$1M for nutrition education in the Food Distribution Program on Indian Reservations (FDPIR).
- ◆ Expenditures on Child Nutrition Programs (CNP) include the School Meals Initiative (Team Nutrition activities), selected smaller projects, and \$2M for the Food Service Management Institute.
- ◆ Expenditures on NET, which focuses on nutrition education in the Child Nutrition Programs, represent those legislatively appropriated for this program.
- ◆ "Other" nutrition education expenditures are for nutrition and food safety information activities of CNPP, FNIC/NAL, and FSIS targeted to the general public.

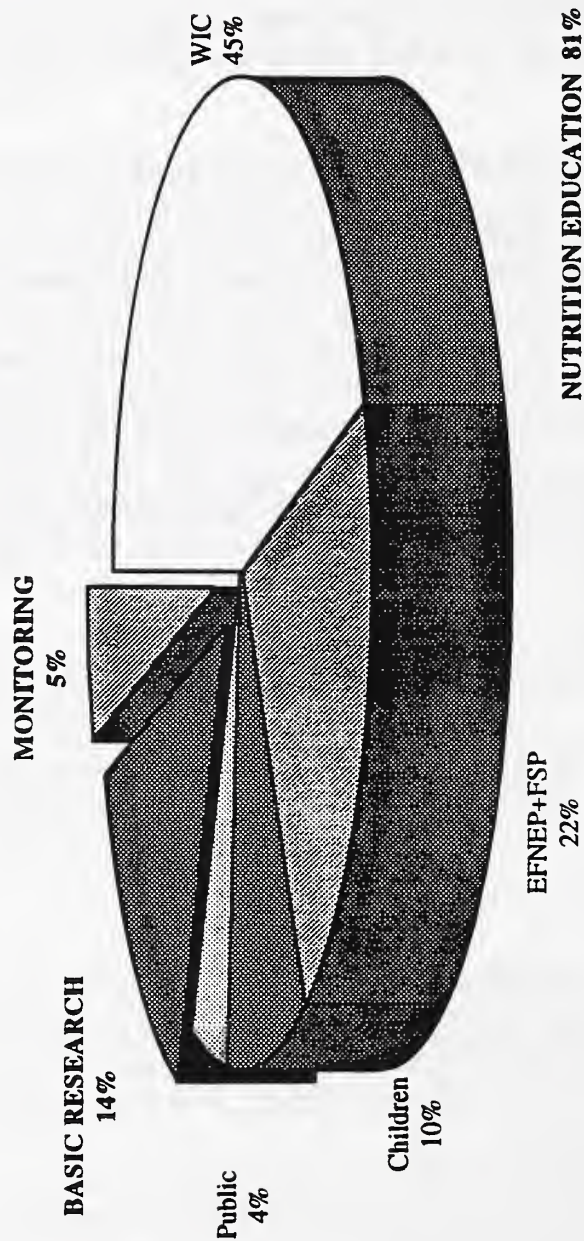
Line Charts:

Data for the line charts on trends in funding for EFNEP, NET, and WIC were obtained from agency factsheets, the OBPA tables used in the Report to Congress, and a summary of EFNEP funding published in a 1989 review article (Randall, M.J., M.S. Brink, and A.B. Joy. 1989. EFNEP: An investment in America's future. *J. Nutrition Education* 21: 276-279).

"Constant dollar" calculations were based on the Consumer Price Index (CPI) for the base year (1970 or 1978) divided by the CPI for the year of the expenditure, and multiplied by the amount of expenditure. These calculations illustrate the loss of buying power of dollars appropriated for these programs over time.

USDA HUMAN NUTRITION RESEARCH AND EDUCATION FUNDING

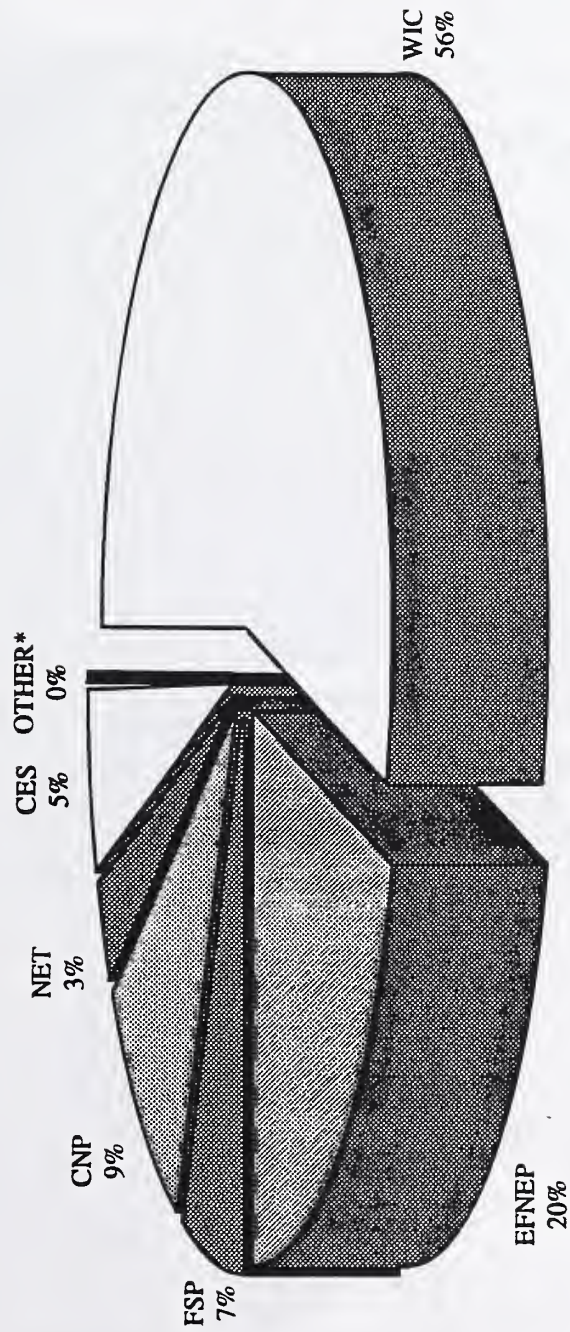
FY95=\$400.3M



81% of total expenditures are for nutrition education, primarily for low-income populations served by WIC, EFNEP, and FSP.

USDA NUTRITION EDUCATION FUNDING

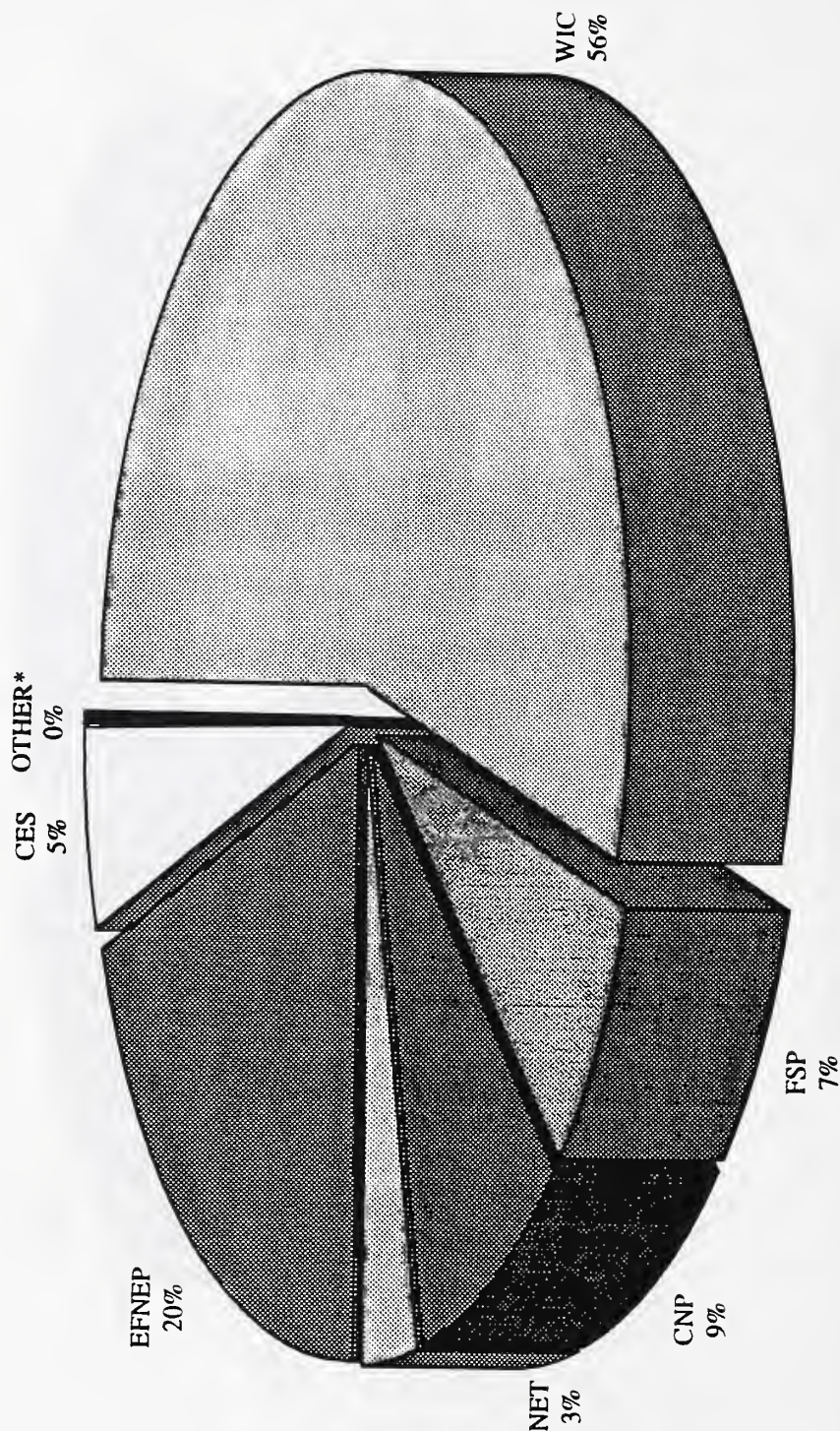
FY95=\$325.6M



83% of expenditures are for low-income audiences served by WIC, EFNEP, and FSP.
*Other expenditures by FSIS, FNIC, and CNPP = <1%.

USDA NUTRITION EDUCATION FUNDING

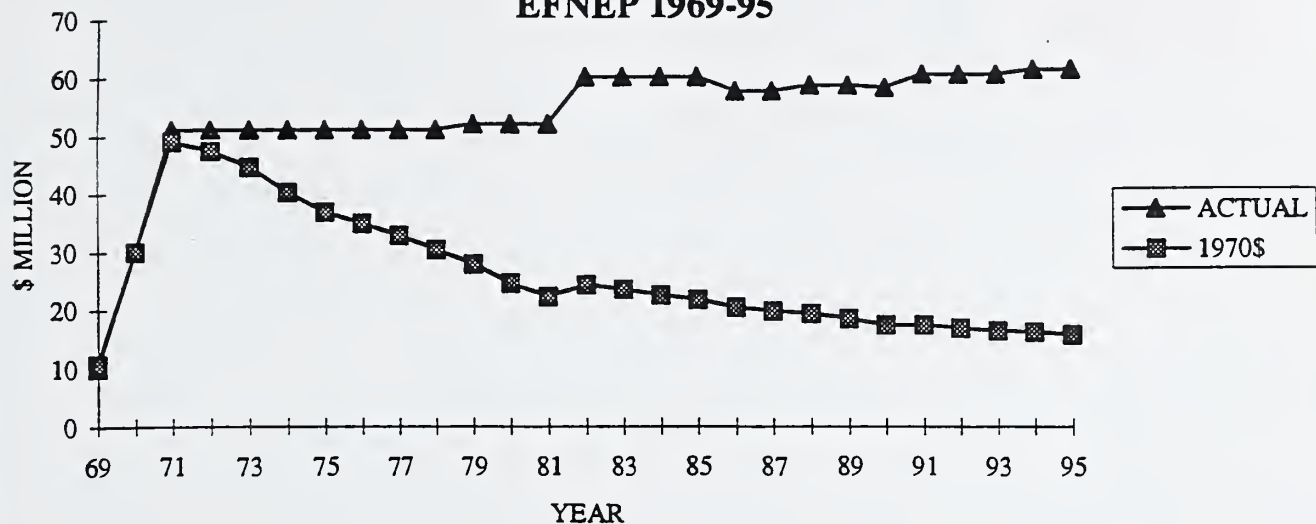
FY95=\$325.6M



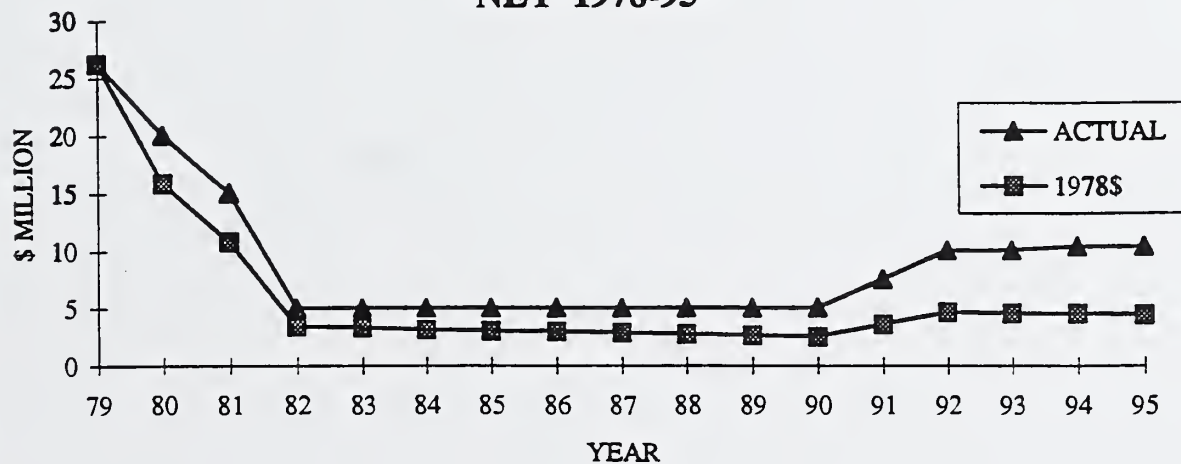
FCS Programs (WIC, FSP, CNP, NET) = 75% of expenditures;
 CSREES Programs (EFNEP, CES base programs) = 25% of expenditures;
 *Other expenditures by FSIS, FNIC, and CNPP = <1%.

FUNDING FOR USDA NUTRITION EDUCATION ACTIVITIES

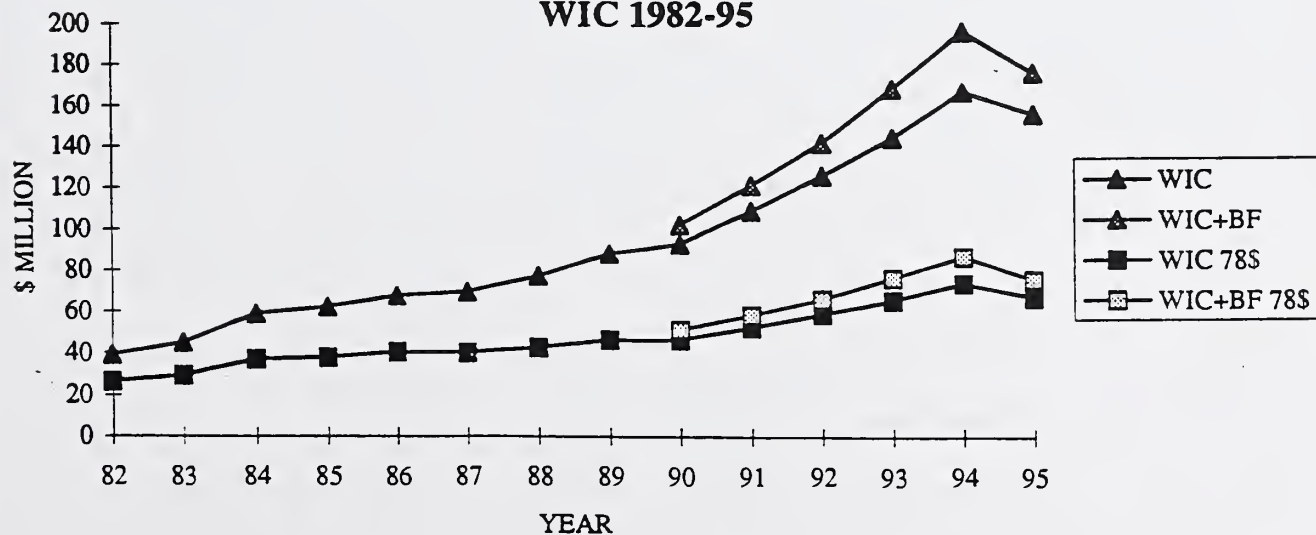
EFNEP 1969-95



NET 1978-95



WIC 1982-95



* NATIONAL AGRICULTURAL LIBRARY



1022378690

NATIONAL AGRICULTURAL LIBRARY



1022378690